Appendices

Appendix	A	Warranty Statement
Appendix	B	Return Authorization
Appendix	C	Recommended Spare Parts
Appendix	D	Programming Flow Charts
Appendix	E	Point Programming Form
Appendix	F	Unit Programming Chart
Appendix	G	Record Programming Chart
Appendix	H	GetData Software Instructions

APPENDIX A

WESTRONICS PRODUCTS LIMITED WARRANTY STATEMENT

All new Westronics instruments are warranted to be free of defects in material and workmanship for a period of twenty-four months from date of factory shipment.

Accessories, i.e., peripheral devices used with Westronics instruments, not manufactured by but supplied by Westronics, are warranted for 90 days from the date of shipment unless otherwise specified on the sales order.

Spare parts and service related repairs are warranted for a period of 90 days from the date of factory shipment.

When notice is received by Westronics, during the warranty period, of defects in a Westronics product, and the defects are confirmed by Westronics authorized service personnel, Westronics will repair or replace, at our option, the defective components of the product at Westronics expense, F.O.B. Kingwood, Texas. Replacement parts will be new or refurbished at Westronics sole discretion.

This product warranty shall be rendered null and void if, in the judgment of authorized Westronics personnel, any of the following occur: the product is stored, before use, for more than twelve months, the product is subjected to environmental conditions exceeding those specified for storage, the product is subjected to misuse, abuse, or rough handling, the product is not operated in accordance with all applicable instructions and specifications, or the product is repaired or modified by other than Westronics authorized personnel.

Westronics software based products are warranted only when operated with software marketed specifically for the product. Where Westronics software has been incorporated or sold for use with a Westronics product, it is warranted to perform only for its intended use. Enhancements may be made and software structure may be different from printed material and features are subject to change without notice.

EXCEPT AS STATED ABOVE, THERE ARE NO OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL WESTRONICS BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL LOSSES ARISING OUT OF OR IN CONNECTION WITH THE USE OF ANY WESTRONICS PRODUCT.

APPENDIX B

RETURN AUTHORIZATION

All equipment and/or parts to be returned to Westronics, for repair or credit, must have a Westronics Return Authorization Number (RAN). This RAN will be issued by Westronics Marketing Department (281) 348-1800 for credit or Service Department (800) 433-2184 for repair.

When calling for a RAN, please provide your Purchase Order Number and an explanation of why equipment and/or parts are being returned.

After the RAN has been obtained, return equipment along with the RAN and a copy of the P.O. This will ensure rapid service and/or credit.

C.O.D. CHARGES WILL NOT BE ACCEPTED.

REQUIRED INFORMATION FOR FACTORY REPAIRS

Instrument Model No.: _____ Serial No.: _____

Return Approved By: _____ Cust. P.O. No.: _____
(Required for all returned equipment)

Date: _____ Requested Return Date: _____ Warranty Repair Request: ___ Yes ___ No

Return Address: _____

_____

_____

Attn: (name) _____

Name and telephone number of person to contact if our Service Dept. requires additional information:

Name: _____

Telephone & Ext. No.: _____

Describe Equipment Defect: _____

_____

_____

_____

Ship Prepaid To:

Westronics Inc.
Attn: Service Department
Suite 100,
22001 North Park Drive
Kingwood, Texas 77339-3804

Please maintain this page for future use. Make duplicates on copy machine as required.

PACKING INSTRUCTIONS

Instruments that are to be returned to the Factory for repairs or credit must be packed according to the following instructions. The customer is liable for all damages caused by improper packing.

1. Unit should be packed in a new reinforced box or crate.

2. There should be at least two inches of resilient packing material (sheets or blocks) on all sides of unit.

3. Packing material should hold unit in center of shipping box and not allow unit to shift inside shipping box.

4. Unit should be shipped with all shipping screws and other shipping retaining devices in place. Refer to Chapter 2, Installation and Wiring, for further packing instructions.

5. Shipping boxes are available from Westronics for a small charge. Please consult the Service Department for pricing.

APPENDIX C

RECOMMENDED SPARE PARTS FOR SMARTVIEW SVC/SVII PAPERLESS RECORDER

The following spare parts are recommended for installations that require minimum downtime. Installations with ten (10) or more SMARTVIEW SVC/SVII Recorders should have at least two (2) sets of recommended spare parts.

(*) Indicates those spares that are recommended for normal service support.

ITEM No.	*QTY.*	*PART NUMBER*	*DESCRIPTION*	*NOTES*
1	1	PA100165-01	OPERATOR INTERFACE - Display Assembly	
2	1	PA100185-01	FLOPPY DRIVE ASSEMBLY	
3	2	PA100186-01	PCMCIA ASSEMBLY DC3 PCMCIA OPTION	A
4	1	PA100187-XX	PCB ASSY - RELAY BOARD (SIX or THREE)	A, B
5*	1	PA100190-XX	ADC Board, Analog Input (SVC Only)	B
6*	1	PA100191-01	RTD Input Board (SVC Only)	A
7*	1	PA100192-XX	POWER SUPPLY	B
8*	1	PA100193-01	PCB ASSY - RS232C	A
OR				
9*	1	PA100194-01	PCB ASSY - RS485	A
10*	1	PA100195-01	PCB ASSY - 24VDC OUTPUT (Loop Power)(SVC Only)	A
11*	1	PA100198-01	LCD BACKLIGHT (for units requiring backlight only)(SVC Only)	
12*	1	PA100200-01	PCB ASSY- 12VDC OUTPUT (Loop Power)(SVC Only)	A
13	1	PA100201-XX	PCMCIA FLASH CARD	A, B
14	1	PA100202-01	PCB Assembly, 6 Input (SVII Only)	

NOTES:

A. This part is recommended only when this option has been purchased.
B. XX in the part number denotes a choice. See drawing ZM100120 or ZM100123, in Chapter 8 of this Manual, for a listing of part numbers and extensions (XX will be 01, 02, 03, etc.) with a description of the part.

ORDERING INSTRUCTIONS:

A. Reference serial number of instrument(s).
B. Address order to:

Westronics Inc.
22001 North Park Drive, Suite 100
Kingwood, Texas 77339-3804 U.S.A.
Phone: (281)348-1800 Fax: (281)348-1288
http://www.westronics.com ☻ e-mail: westsale@westronics.com

or

Westronics Europe
Unit 15 Chamberlayne Road
Bury St. Edmunds Suffolk IP32 7EY England
Phone 44/0284-704805 Fax 44/0284-762932

APPENDIX D

Programming Flow Charts

The following pages contain a complete set of Programming Flow Charts for the Recorder. Information not contained on the flow charts may be obtained by referring to the appropriate Chapter within the User manual. The listing below shows the Figure Number in the User Manual and the page in this Appendix which the figure appears. The first number of the Figure Number corresponds to the Chapter of the User Manual where the Figure can be found. Refer to the appropriate Chapter Table of Contents to find the Figure within the User Manual.

Figure No.	*Description*	*Page No.*
	Overall Programming Flow Chart	D-2
Figure 3-3	Browsing Ram Flow Chart	D-3
Figure 3-4	Browsing Files Flow Chart	D-4
Figure 3-24	Display Point Flow Chart	D-5
Figure 3-25	Display Alarms Flow Chart	D-6
Figure 3-26	Display Junction Temperature Flow Chart	D-7
Figure 3-27	Display Version Flow Chart	D-8
Figure 3-28	Display Media Status Flow Chart	D-9
Figure 3-30	Turn Record Function to OFF Flow Chart	D-10
Figure 3-31	Turn Record Function to ON Flow Chart	D-11
Figure 3-32	Turn Trigger Mode to ON Flow Chart	D-12
Figure 3-33	Activate Point Flow Chart	D-13
Figure 3-34	Bypass Points Flow Chart	D-14
Figure 3-35	Reset Point Flow Chart	D-15
Figure 3-36	Select Chart Speed Flow Chart	D-16
Figure 3-37	Record Speed Select Flow Chart	D-17
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Figure 3-39	Select Scale Set Flow Chart	D-19
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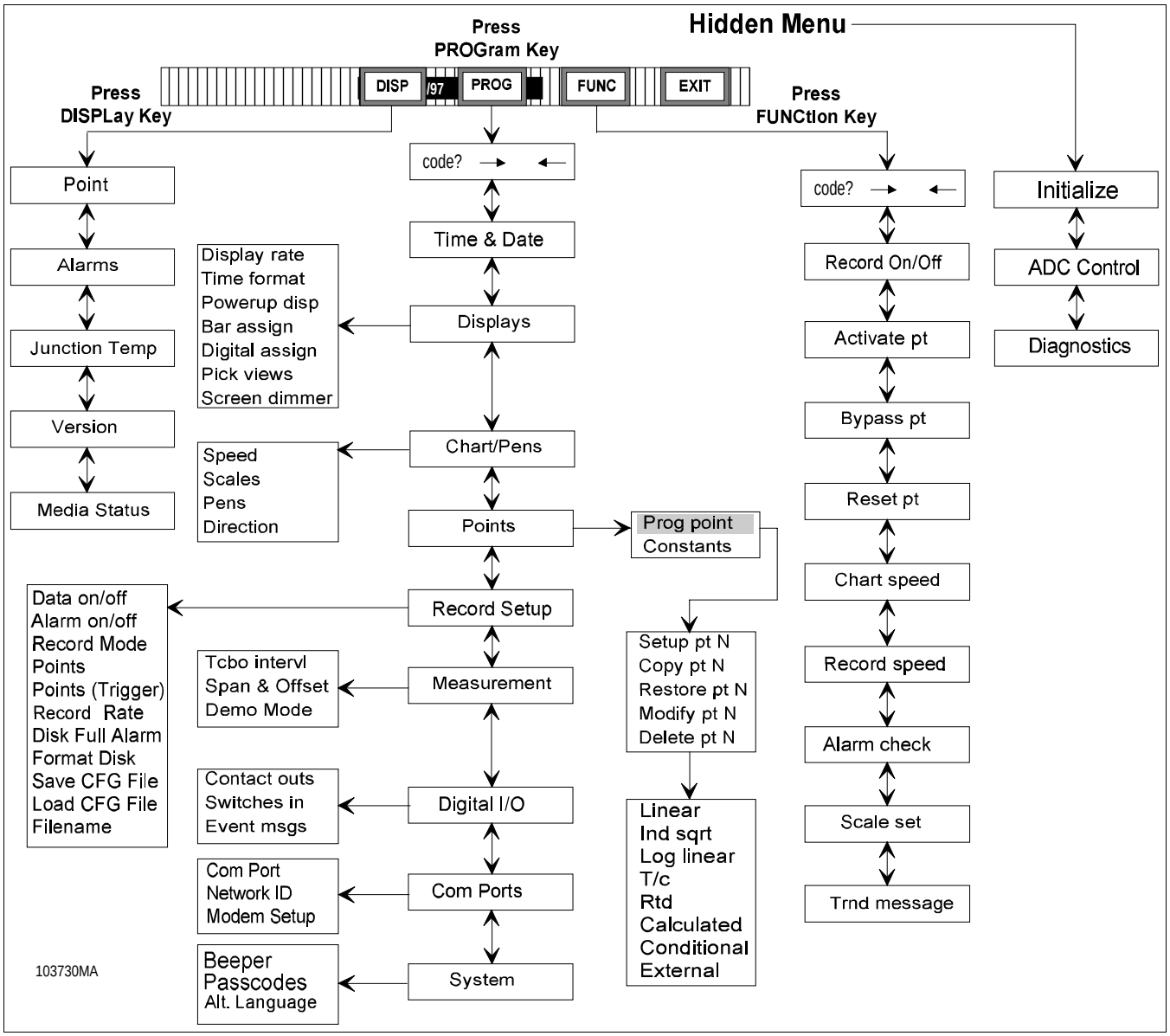
Figure 4-6	Displays Menu Item Programming Flow Chart (2 sheets)	D-23 & 24
Figure 4-7	Chart/Pens Setup Menu Flow Chart	D-25
Figure 4-10	Program Constants Flow Chart	D-26
Figure 4-11	Point Setup Flow Chart	D-27
Figure 6-2	ADC Calibration Programming Flow Chart	D-28
Figure 6-3	Current Calibration Flow Chart	D-29
Figure 6-4	Restore the ADC Constants Flow Chart	D-30



Overall Programming Flow Chart

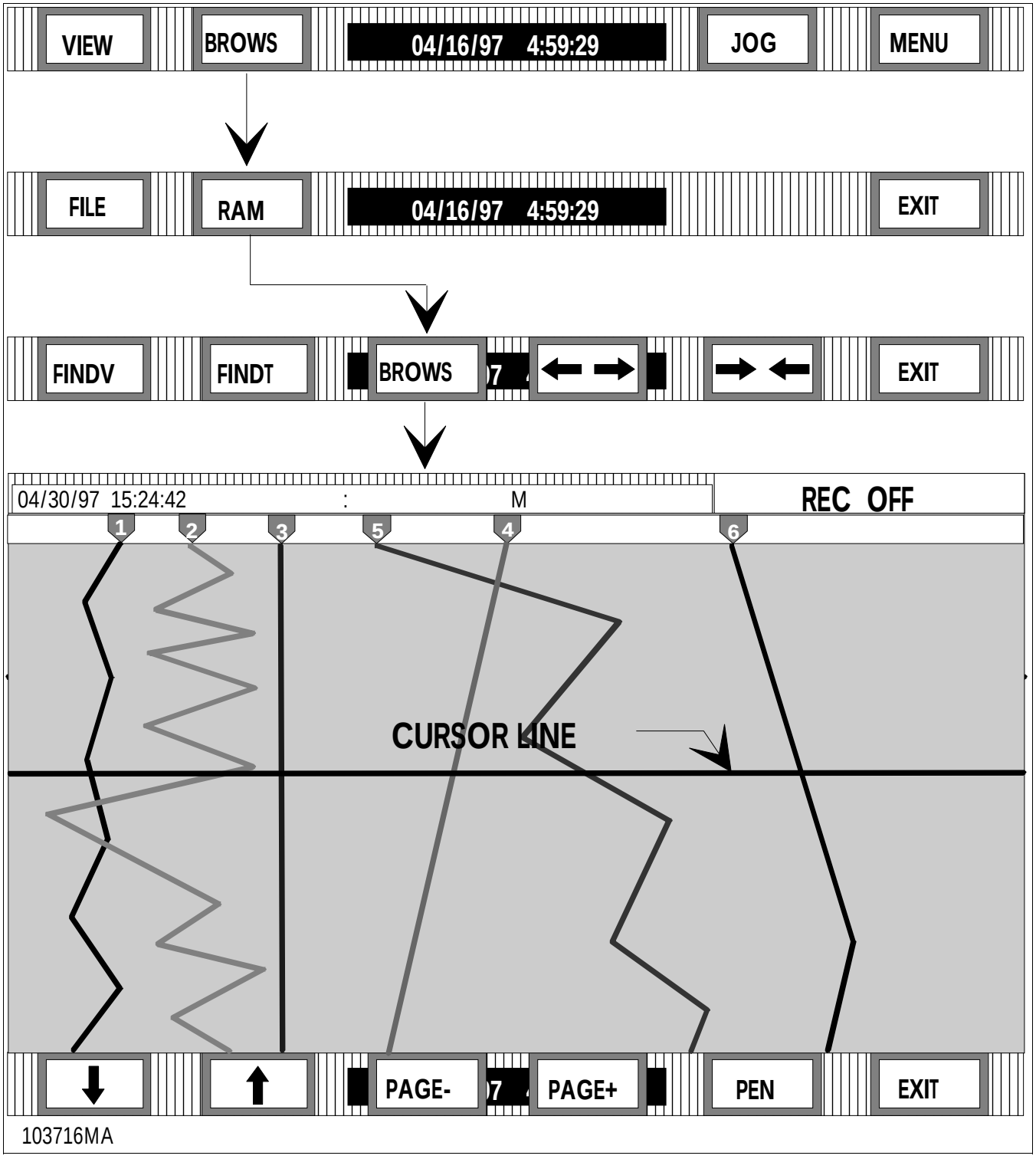


Figure 3-3 Browsing Ram Flow Chart

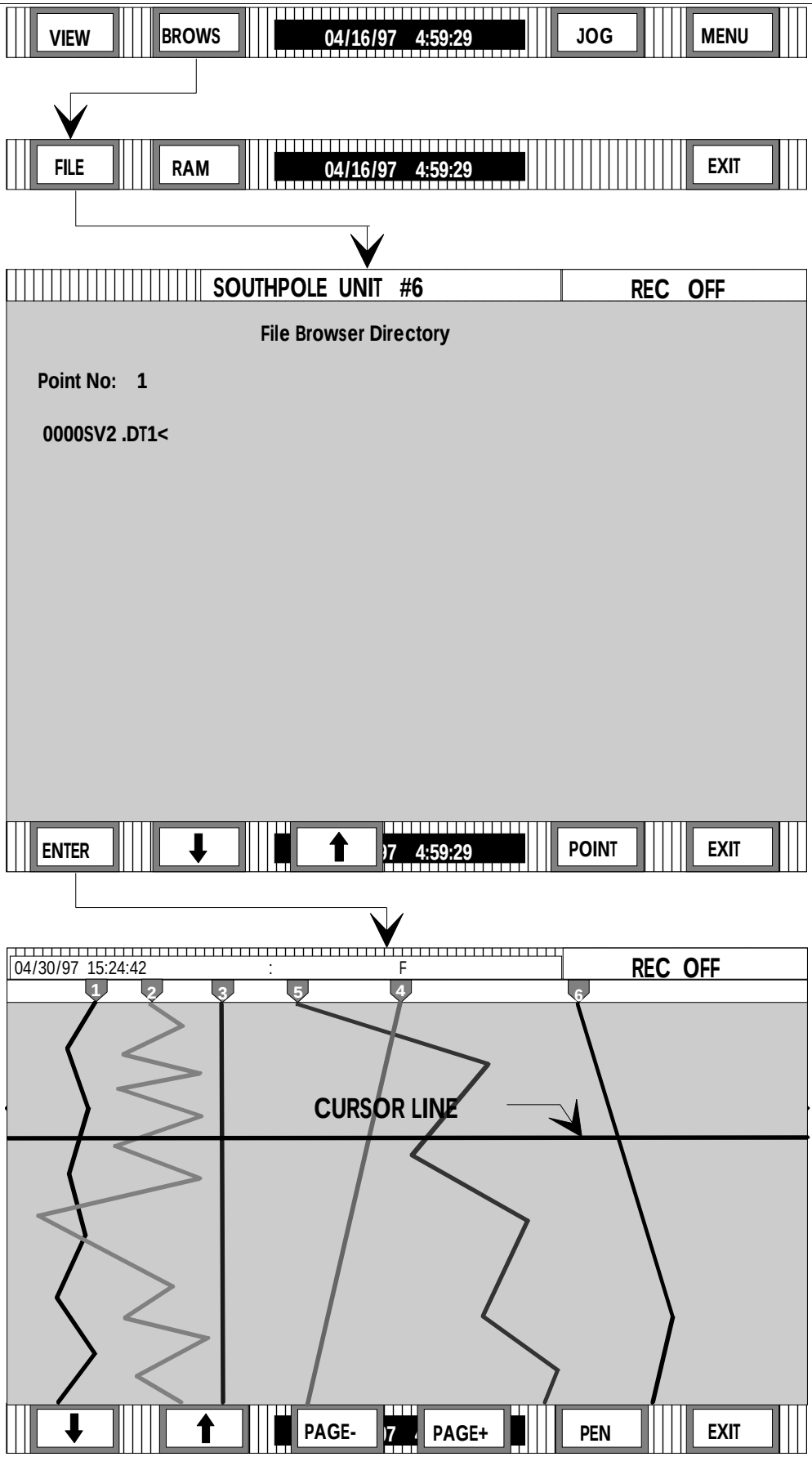


Figure 3-4 Browsing Files Flow Chart

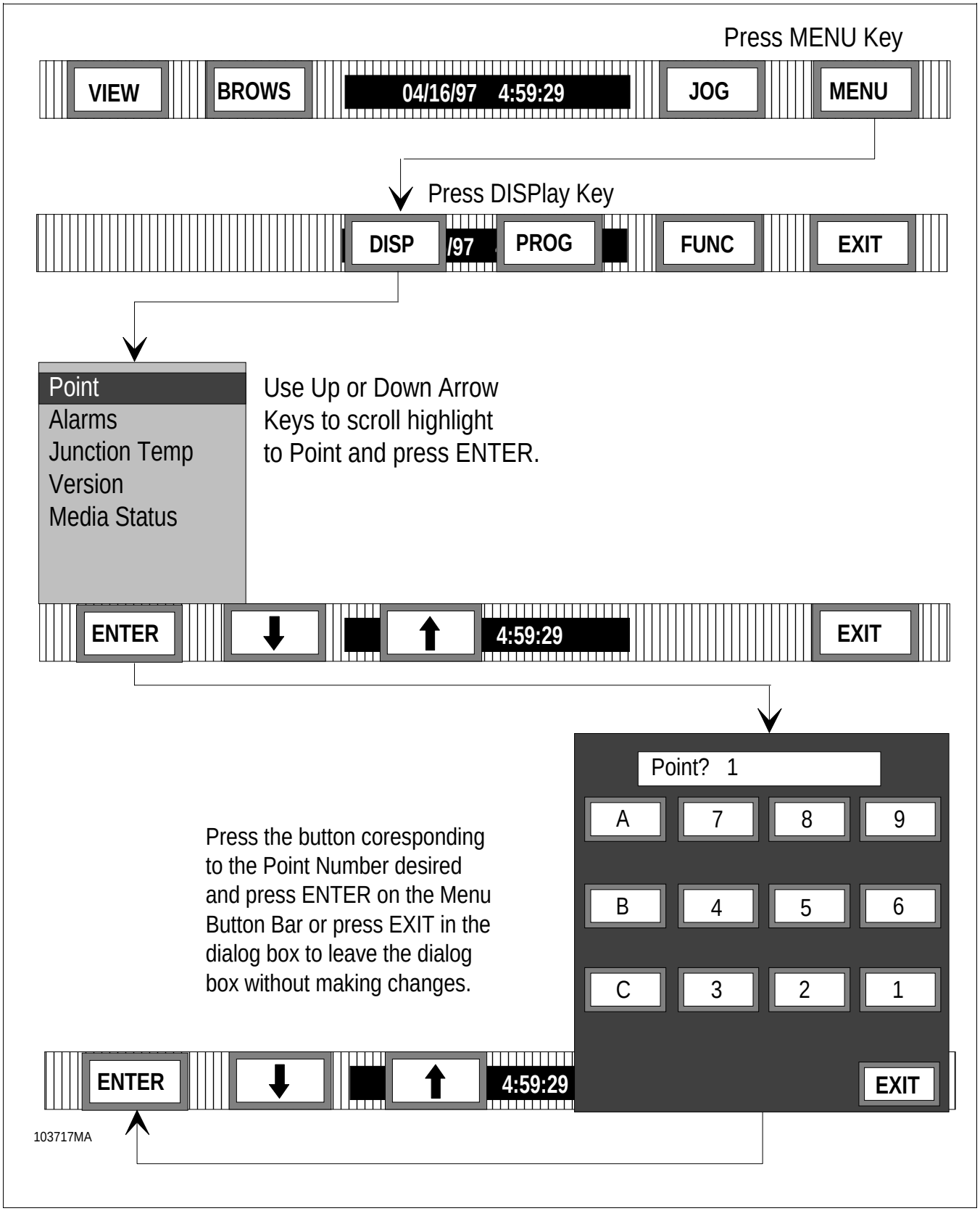


Figure 3-24 Display Point Flow Chart

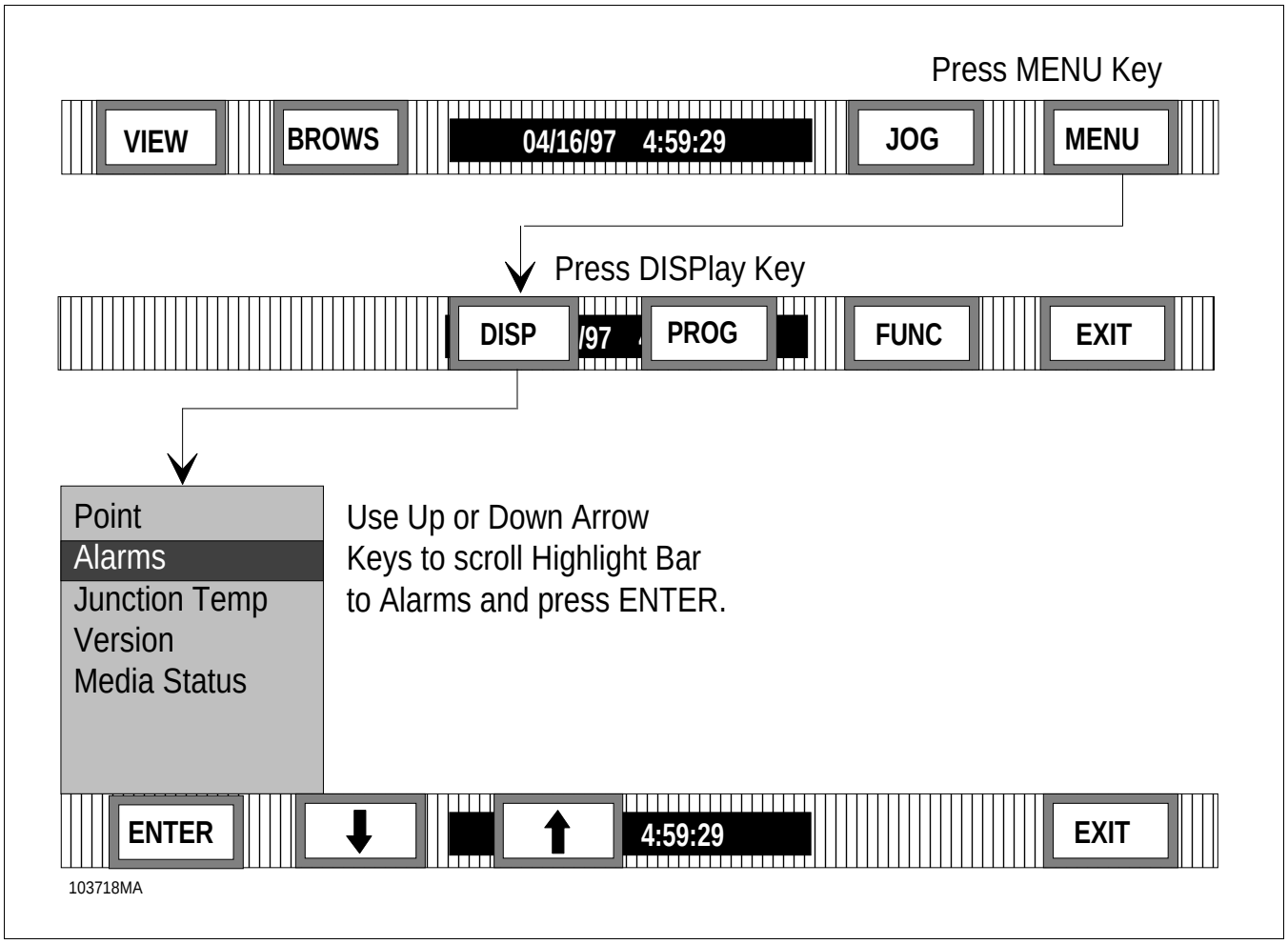


Figure 3-25 Display Alarms Flow Chart

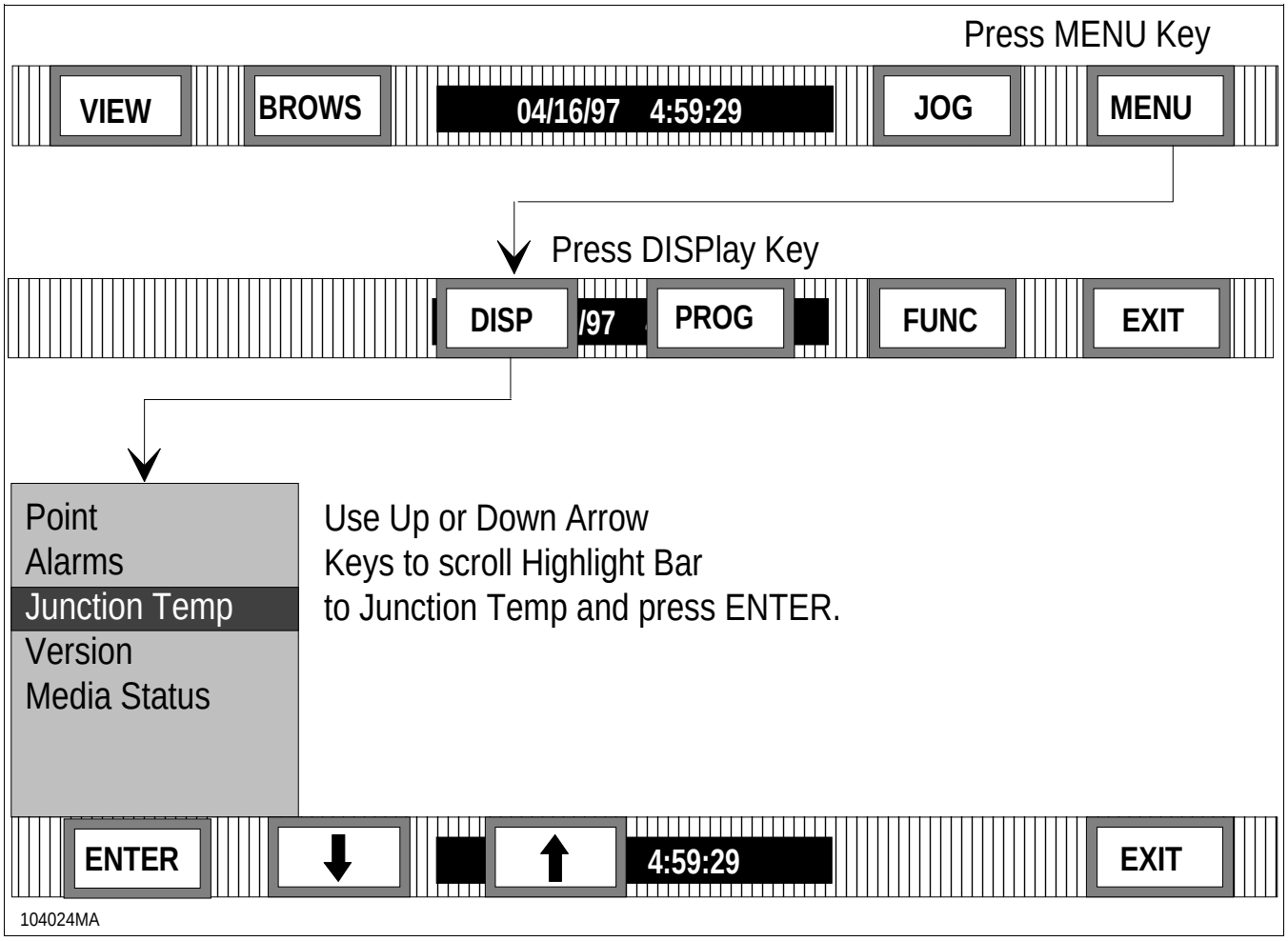


Figure 3-26 Display Junction Temperature Flow Chart

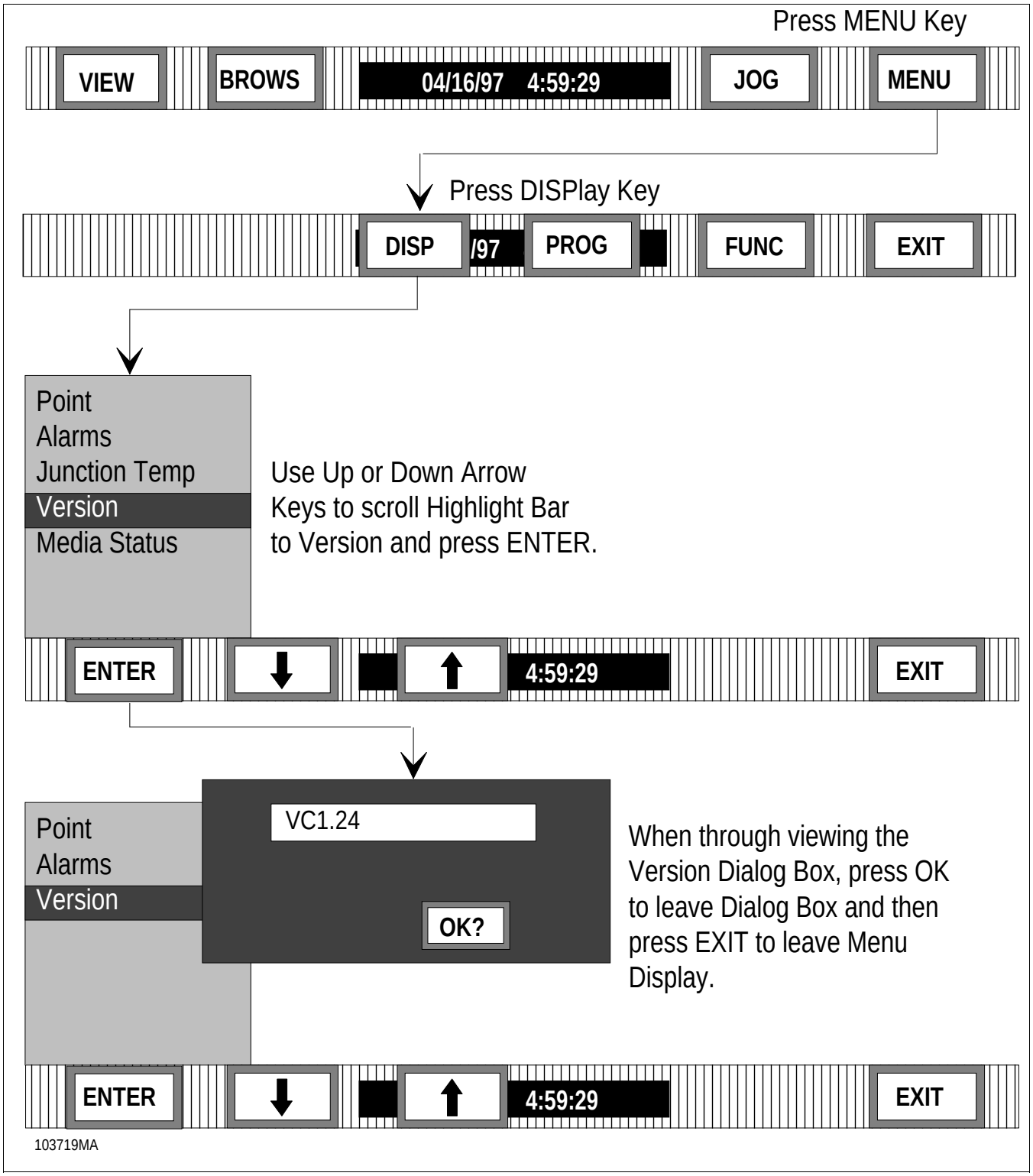


Figure 3-27 Display Version Flow Chart

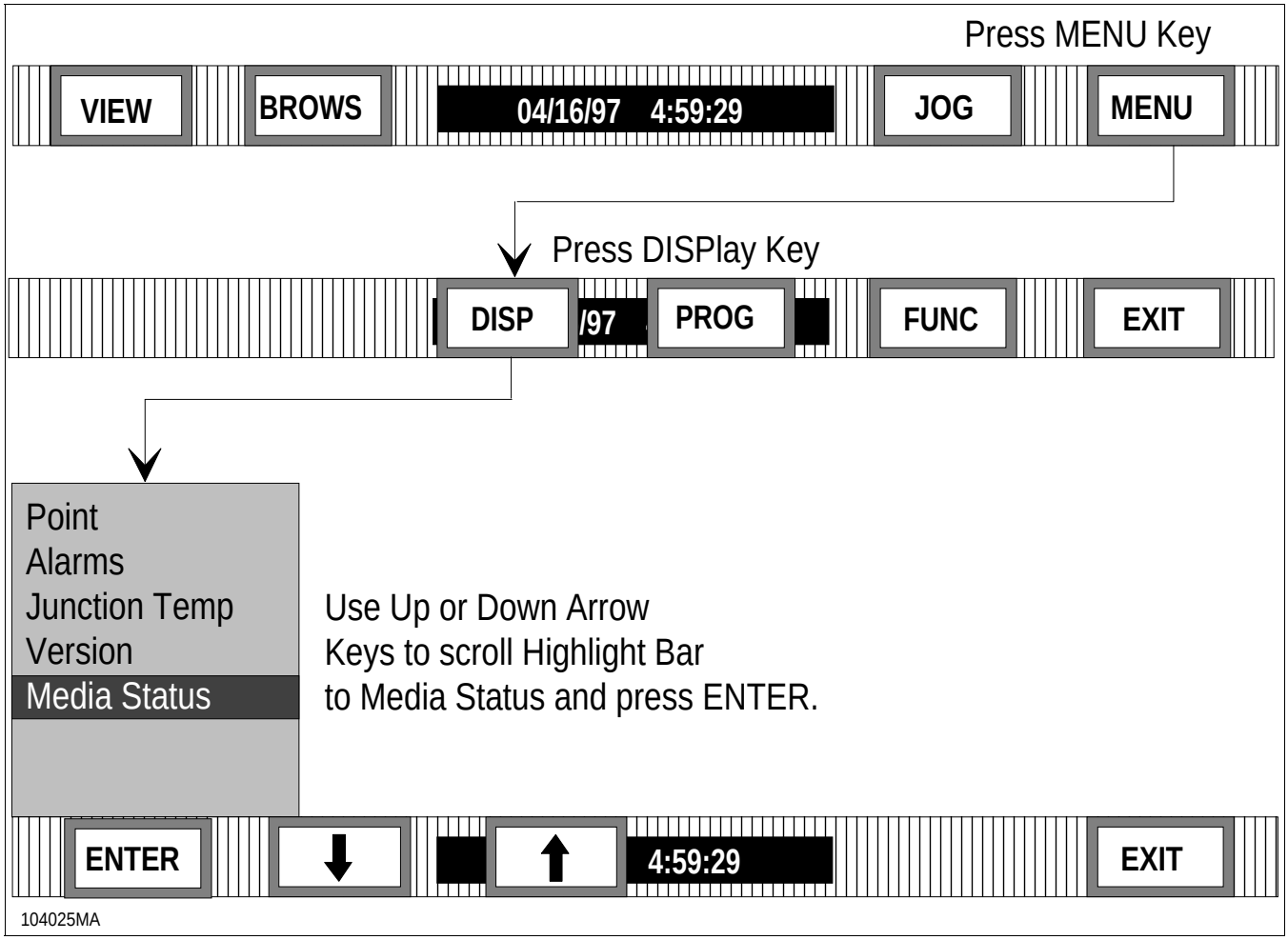


Figure 3-28 Display Media Status Flow Chart

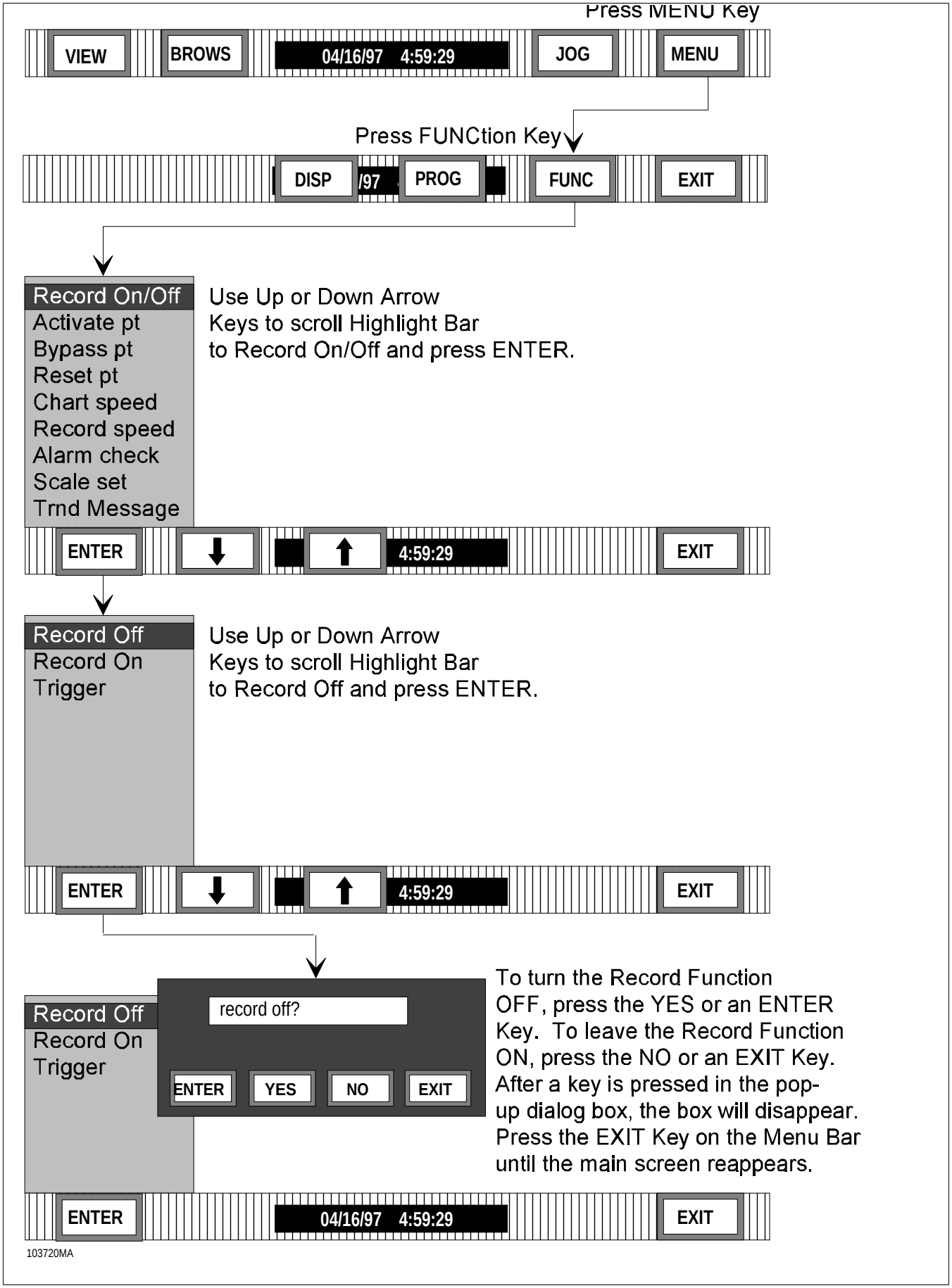


Figure 3-30 Turn Record Function to OFF Flow Chart

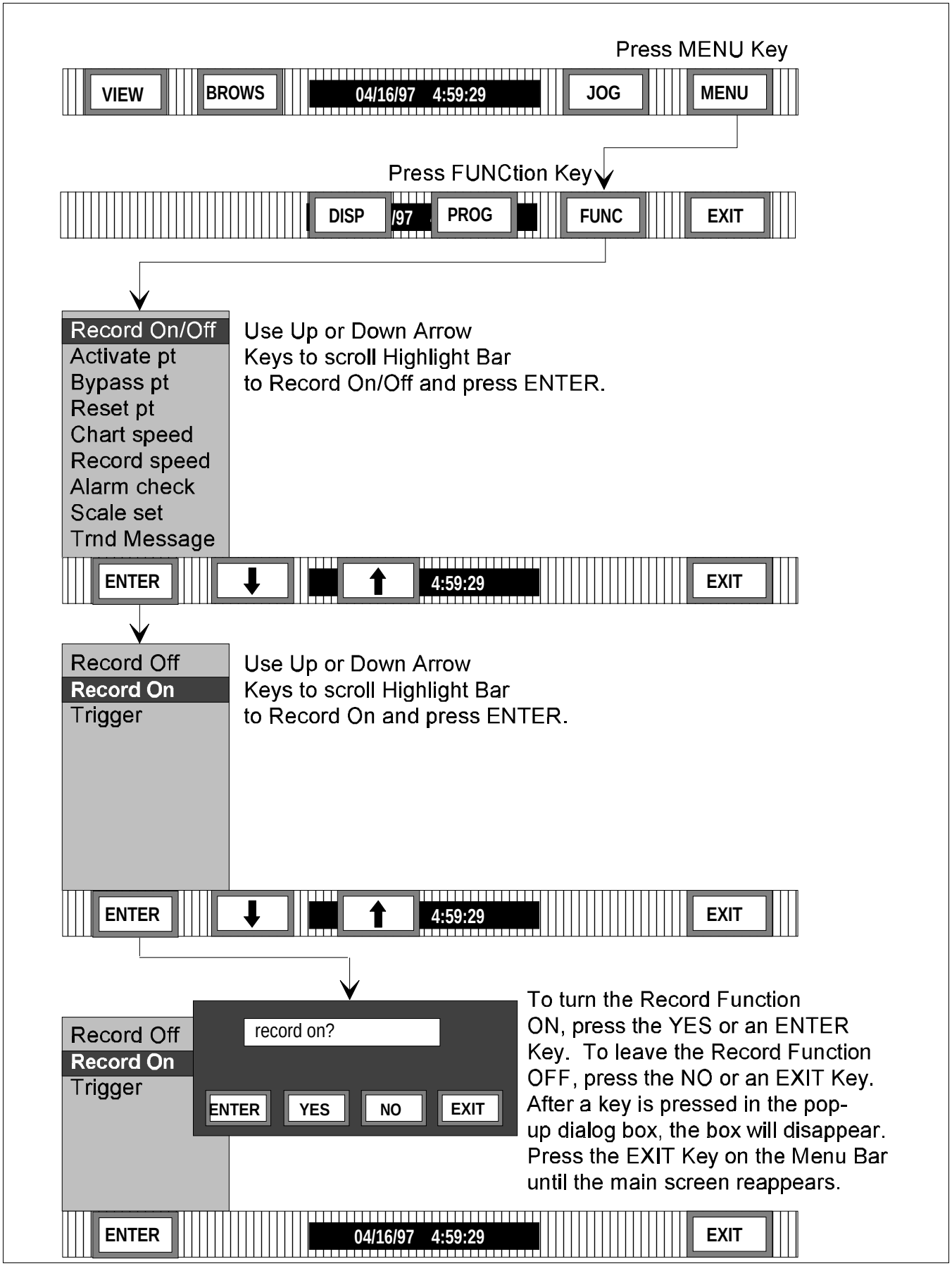


Figure 3-31 Turn Record Function to ON Flow Chart

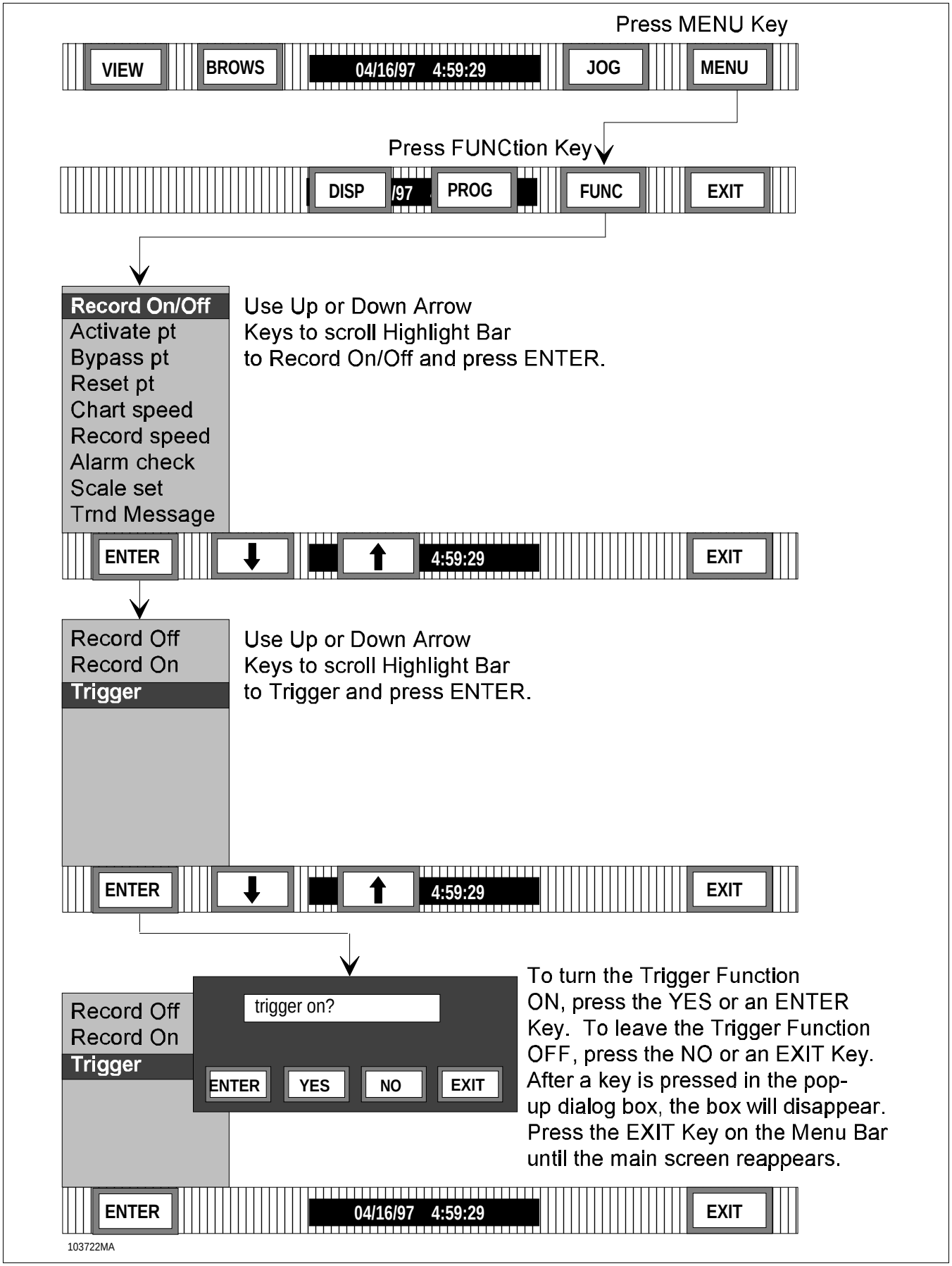


Figure 3-32 Turn Trigger Mode to ON Flow Chart

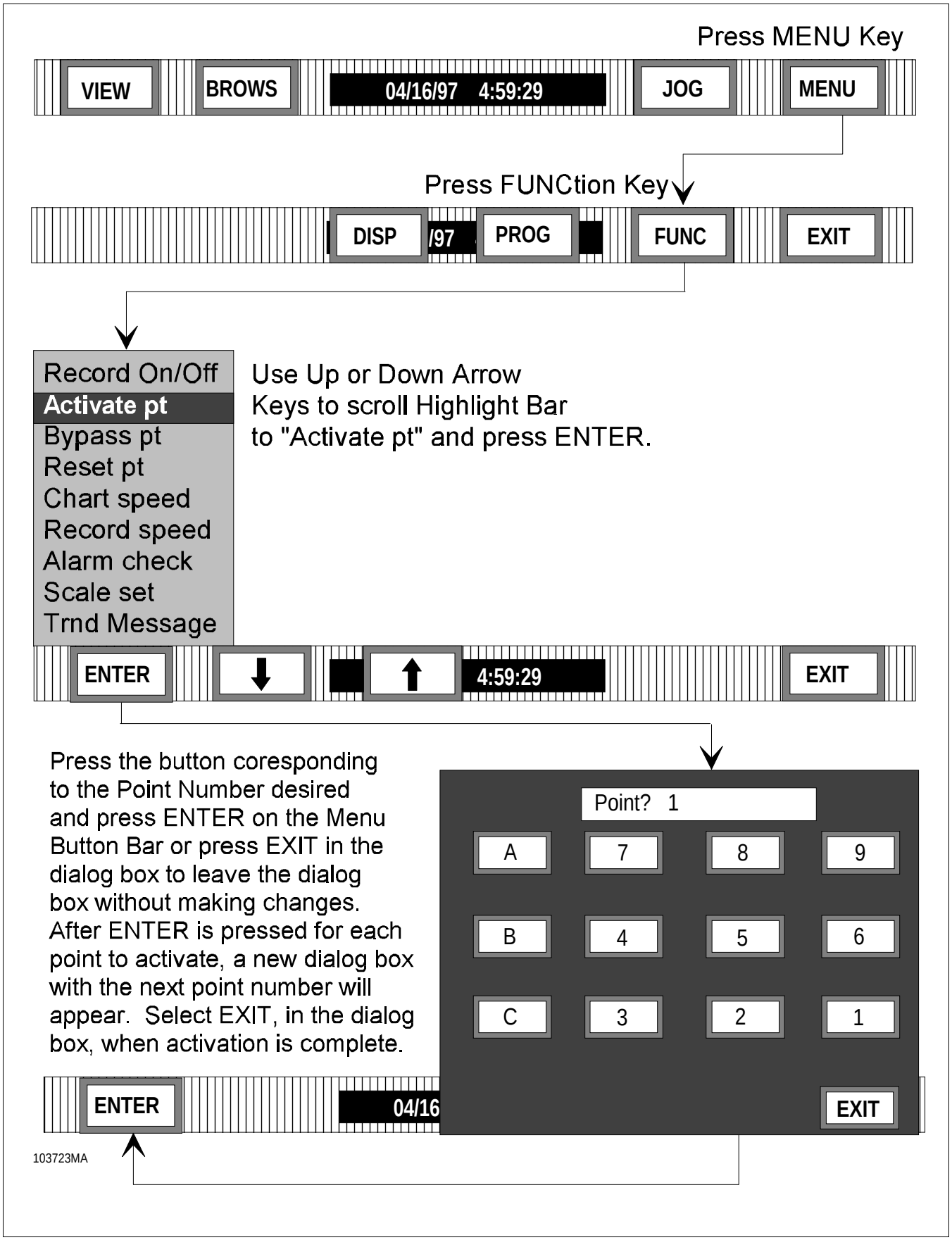


Figure 3-33 Activate Point Flow Chart

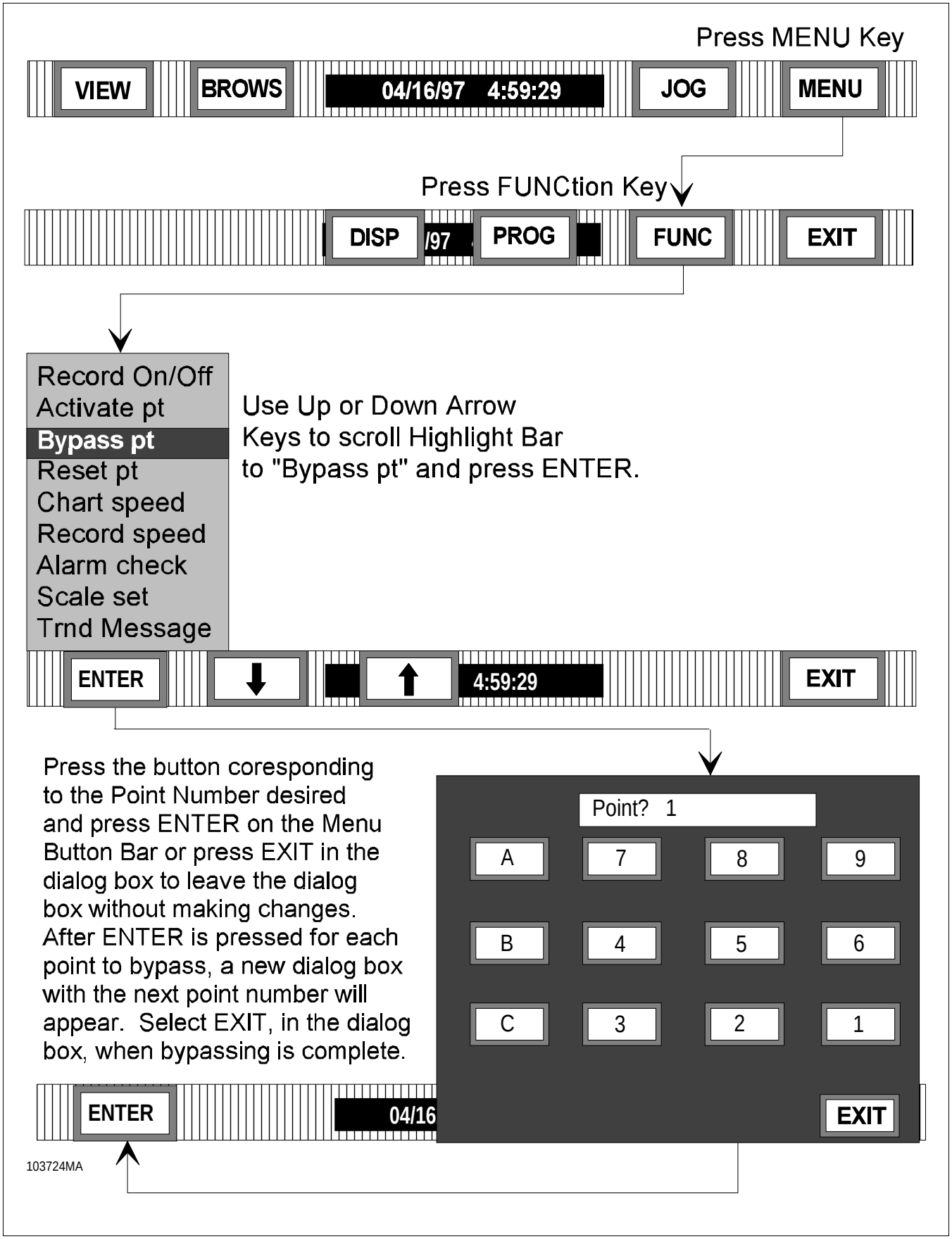


Figure 3-34 Bypass Points Flow Chart

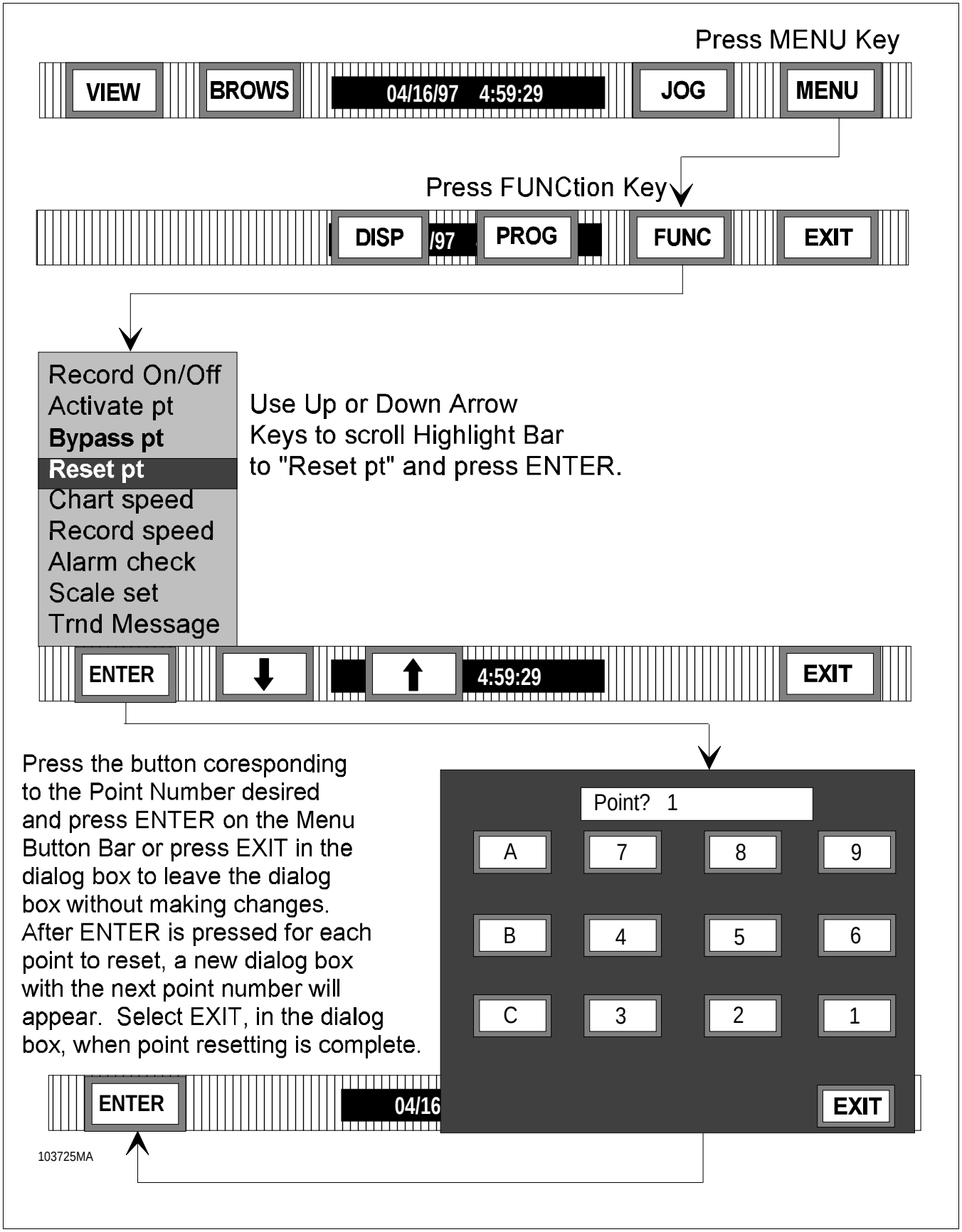


Figure 3-35 Reset Point Flow Chart

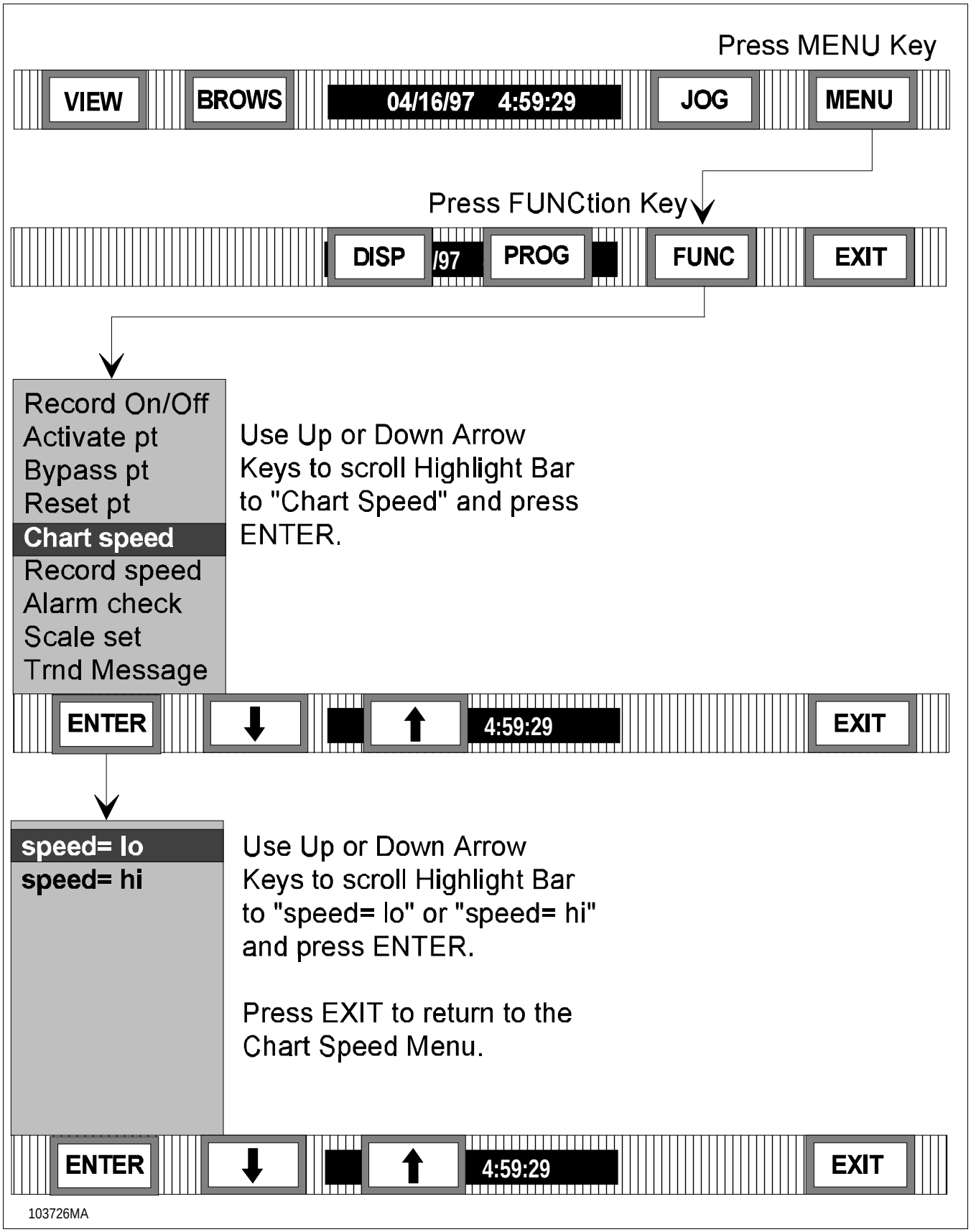


Figure 3-36 Select Chart Speed Flow Chart

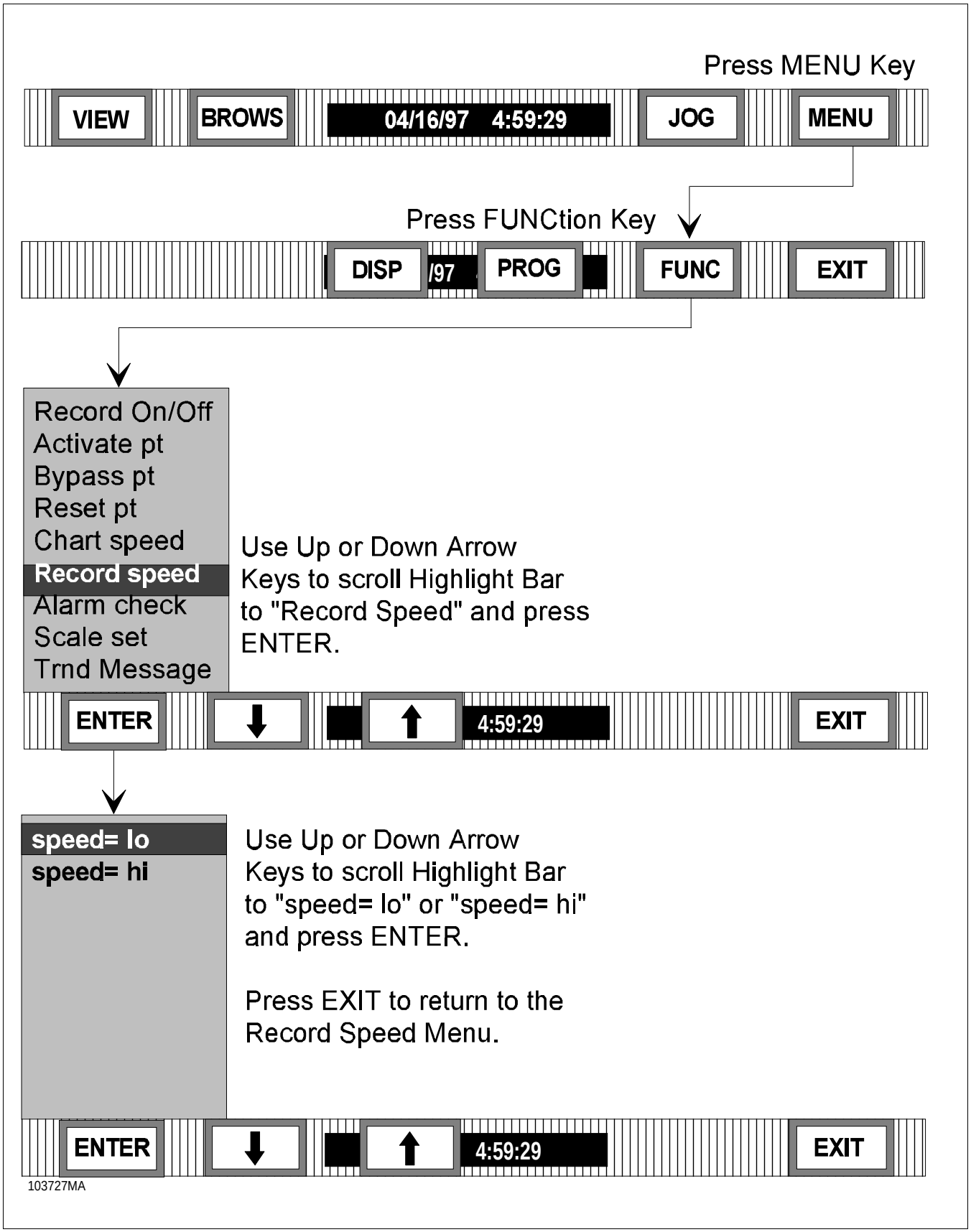


Figure 3-37 Record Speed Select Flow Chart

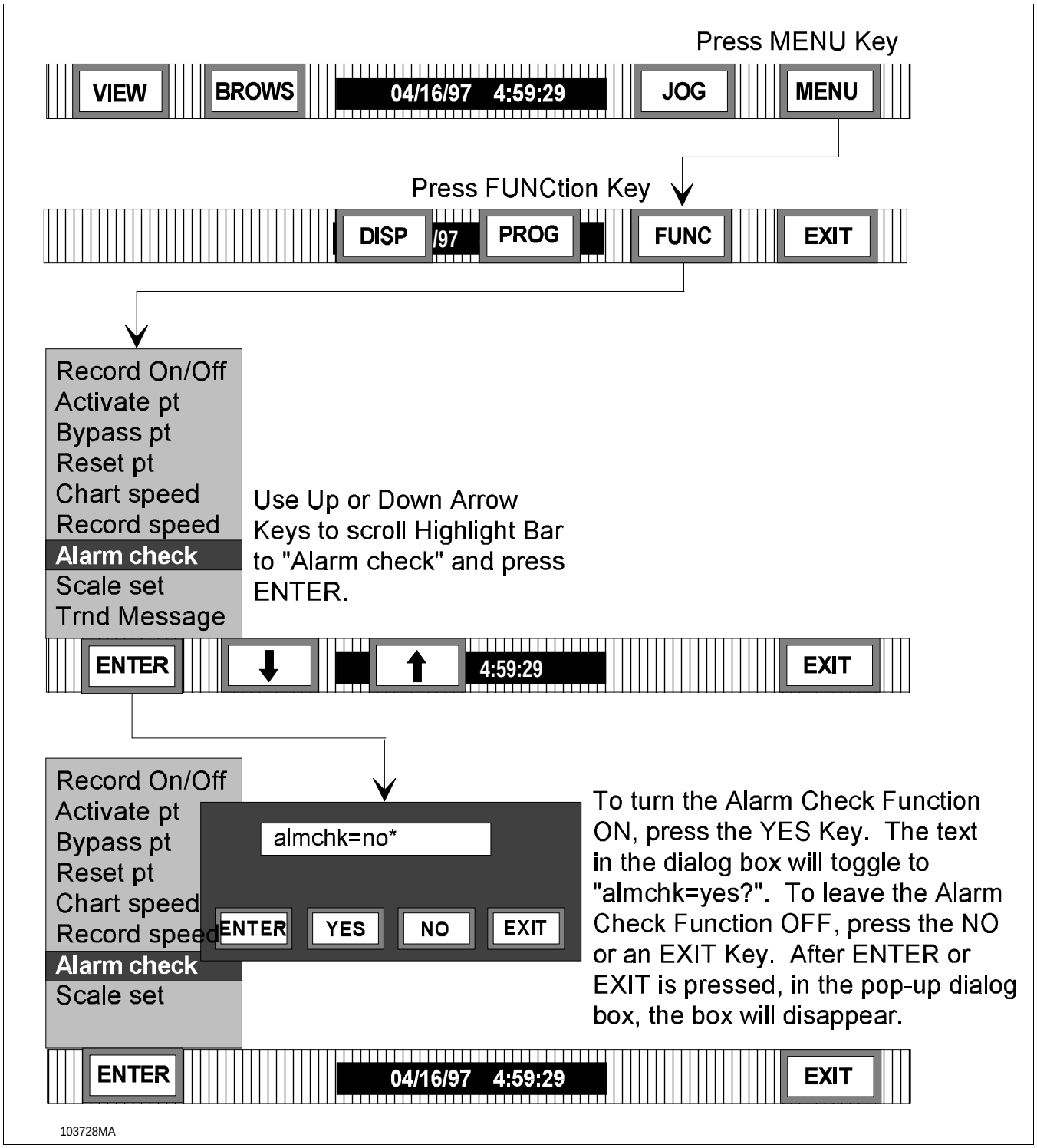


Figure 3-38 Alarm Check Function Flow Chart

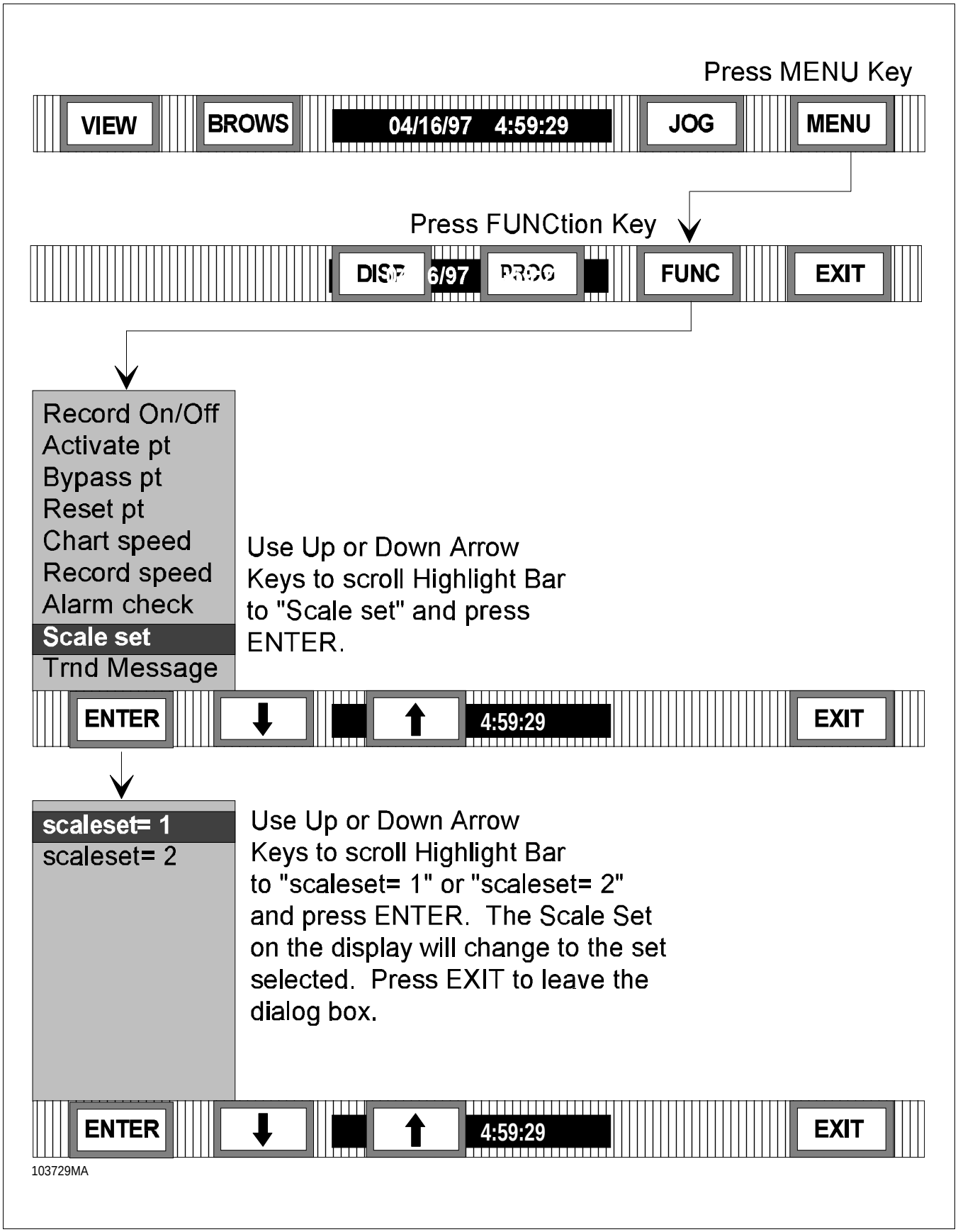


Figure 3-39 Select Scale Set Flow Chart

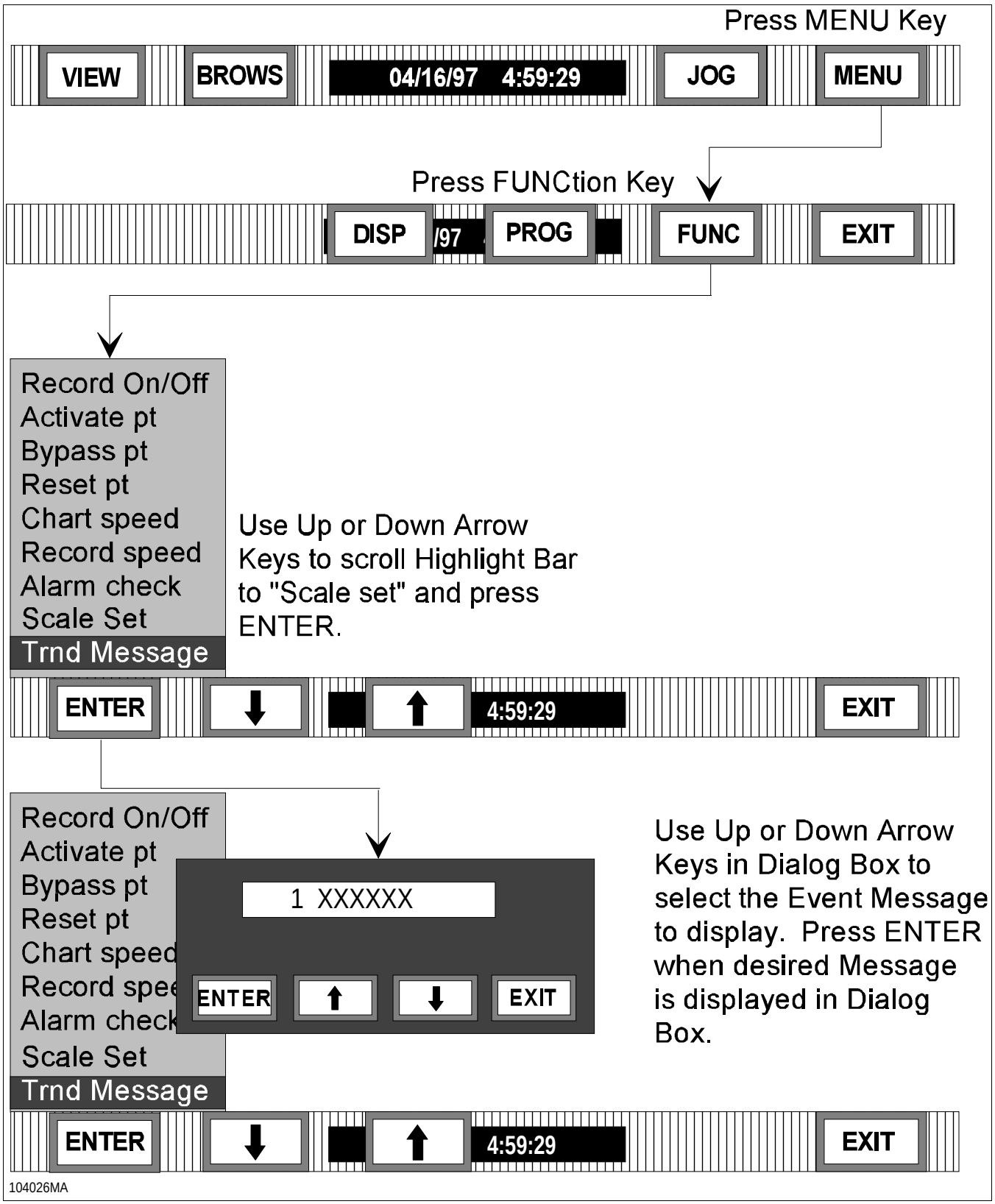


Figure 3-40 Select Message to Display Flow Chart

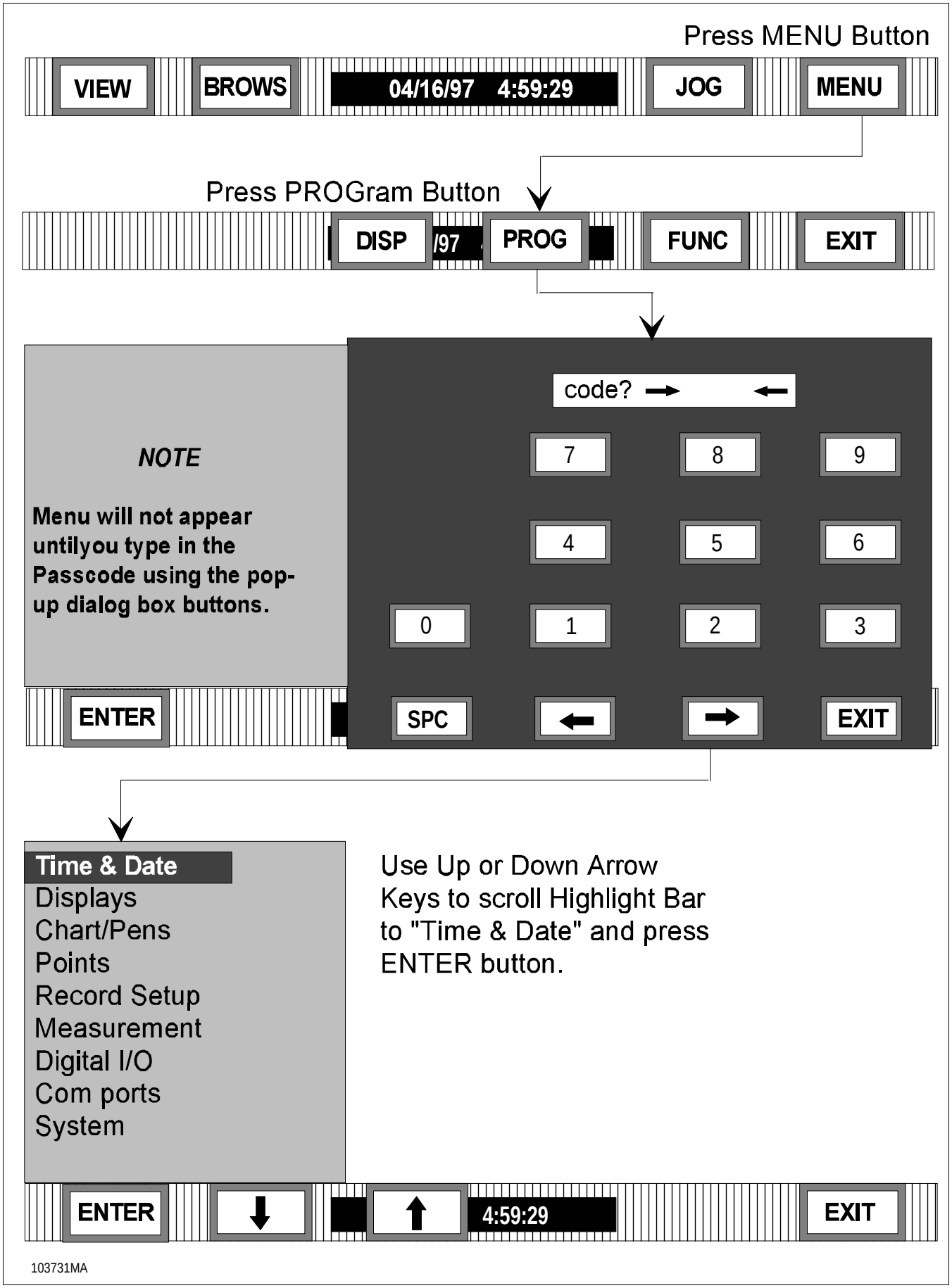


Figure 4-4 Accessing Program Menu Flow Chart

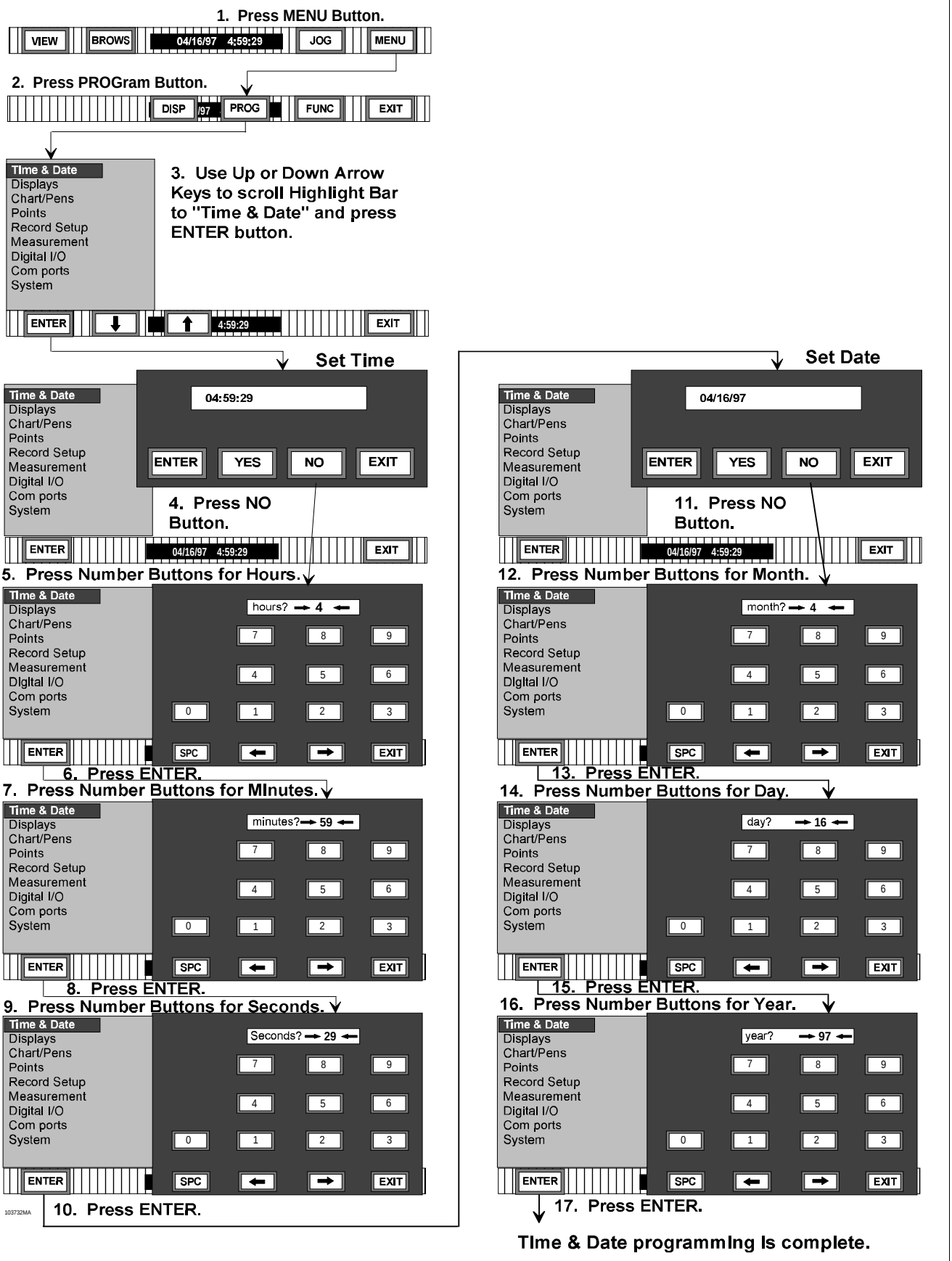


Figure 4-5 Time & Date Menu Item Flow Chart

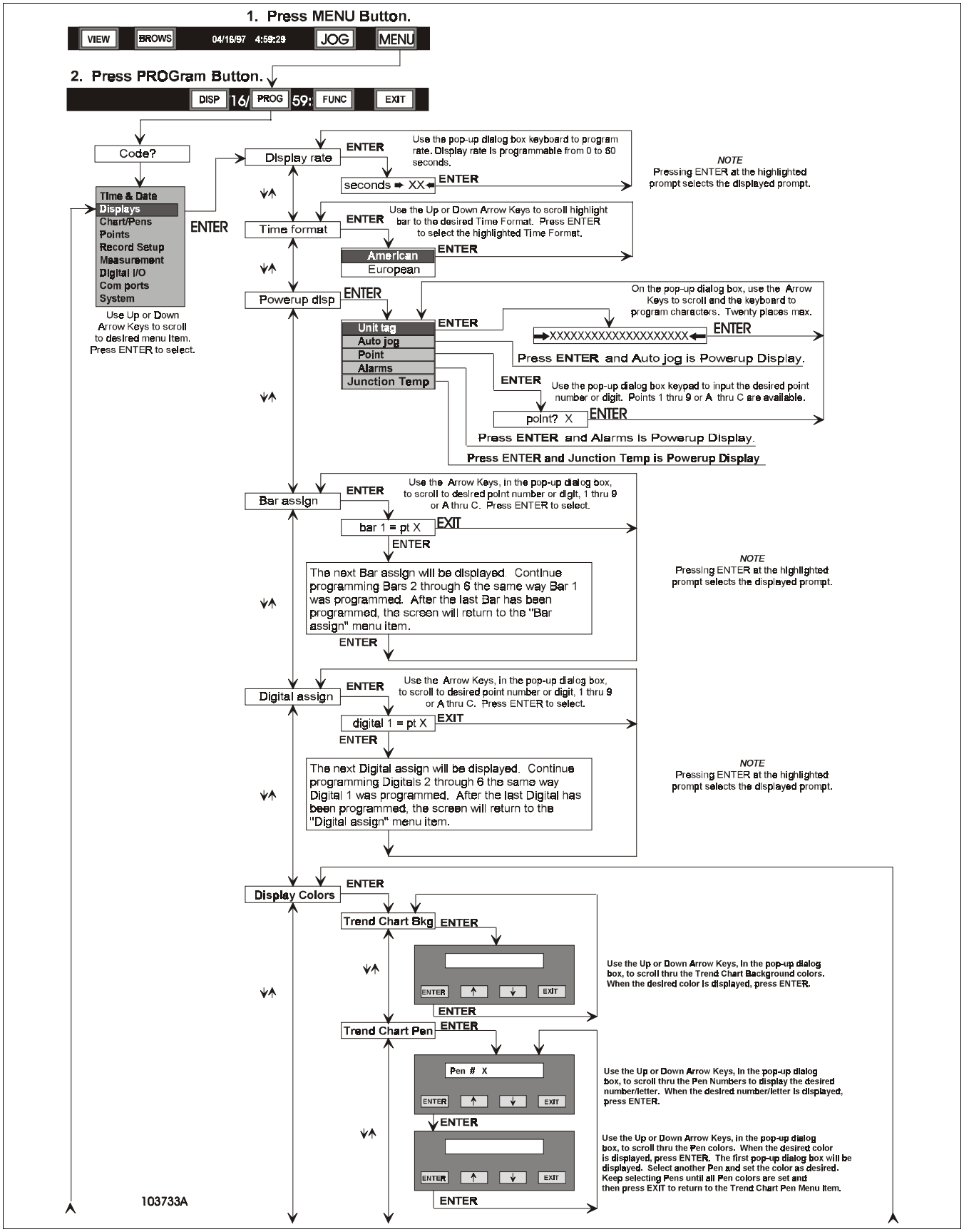

1. Press MENU Button.
VIEW
BROWS
04/16/97 4:59:29
JOG
MENU
2. Press PROGram Button.
DISP
16/
PROG
59:
FUNC
EXIT
Code?
Time & Date
Displays
Chart/Pens
Points
Record Setup
Measurement
Digital I/O
Com ports
System
ENTER
Use Up or Down Arrow Keys to scroll to desired menu item. Press ENTER to select.
Display rate
ENTER
Use the pop-up dialog box keyboard to program rate. Display rate is programmable from 0 to 60 seconds.
seconds ➡ XX⬅
ENTER
NOTE
Pressing ENTER at the highlighted prompt selects the displayed prompt.
Time format
ENTER
Use the Up or Down Arrow Keys to scroll highlight bar to the desired Time Format. Press ENTER to select the highlighted Time Format.
American
European
ENTER
Powerup disp
ENTER
Unit tag
Auto jog
Point
Alarms
Junction Temp
ENTER
On the pop-up dialog box, use the Arrow Keys to scroll and the keyboard to program characters. Twenty places max.
➡XXXXXXXXXXXXXXXXXXXX⬅
ENTER
Press ENTER and Auto jog is Powerup Display.
ENTER
Use the pop-up dialog box keypad to input the desired point number or digit. Points 1 thru 9 or A thru C are available.
point? X
ENTER
Press ENTER and Alarms is Powerup Display.
Press ENTER and Junction Temp is Powerup Display
Bar assign
ENTER
Use the Arrow Keys, in the pop-up dialog box, to scroll to desired point number or digit, 1 thru 9 or A thru C. Press ENTER to select.
bar 1 = pt X
EXIT
ENTER
The next Bar assign will be displayed. Continue programming Bars 2 through 6 the same way Bar 1 was programmed. After the last Bar has been programmed, the screen will return to the "Bar assign" menu item.
ENTER
NOTE
Pressing ENTER at the highlighted prompt selects the displayed prompt.
Digital assign
ENTER
Use the Arrow Keys, in the pop-up dialog box, to scroll to desired point number or digit, 1 thru 9 or A thru C. Press ENTER to select.
digital 1 = pt X
EXIT
ENTER
The next Digital assign will be displayed. Continue programming Digitals 2 through 6 the same way Digital 1 was programmed. After the last Digital has been programmed, the screen will return to the "Digital assign" menu item.
NOTE
Pressing ENTER at the highlighted prompt selects the displayed prompt.
Display Colors
ENTER
Trend Chart Bkg
ENTER
ENTER
EXIT
ENTER
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Trend Chart Background colors. When the desired color is displayed, press ENTER.
Trend Chart Pen
ENTER
Pen # X
ENTER
EXIT
ENTER
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Pen Numbers to display the desired number/letter. When the desired number/letter is displayed, press ENTER.
ENTER
EXIT
ENTER
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Pen colors. When the desired color is displayed, press ENTER. The first pop-up dialog box will be displayed. Select another Pen and set the color as desired. Keep selecting Pens until all Pen colors are set and then press EXIT to return to the Trend Chart Pen Menu item.
103733A

Figure 4-6 Displays Menu Item Programming Flow Chart (Sheet 1 of 2)

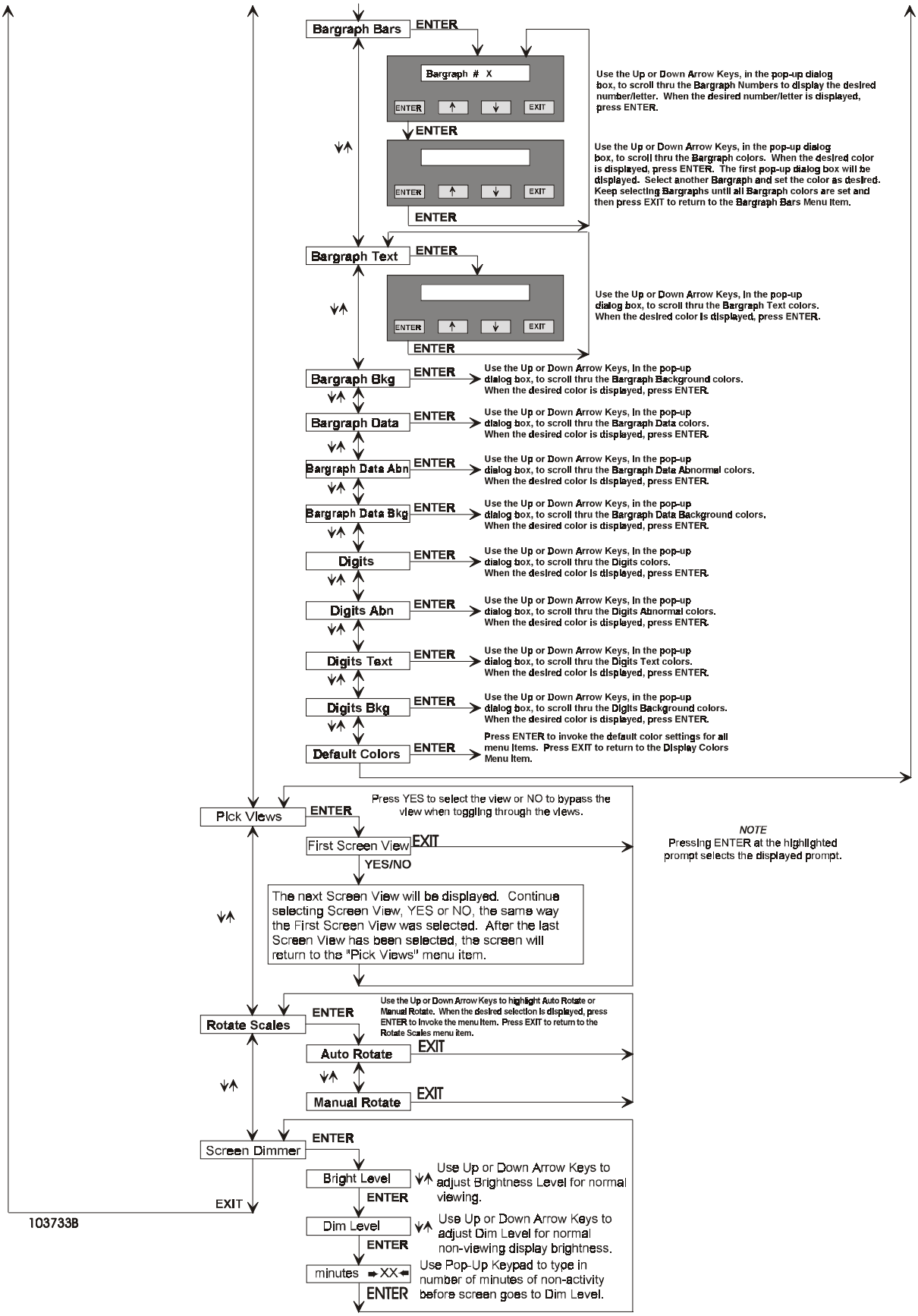

Bargraph Bars
ENTER
Bargraph # X
ENTER
EXIT
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Numbers to display the desired number/letter. When the desired number/letter is displayed, press ENTER.
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph colors. When the desired color is displayed, press ENTER. The first pop-up dialog box will be displayed. Select another Bargraph and set the color as desired. Keep selecting Bargraphs until all Bargraph colors are set and then press EXIT to return to the Bargraph Bars Menu Item.
Bargraph Text
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Text colors. When the desired color is displayed, press ENTER.
Bargraph Bkg
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Background colors. When the desired color is displayed, press ENTER.
Bargraph Data
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Data colors. When the desired color is displayed, press ENTER.
Bargraph Data Abn
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Data Abnormal colors. When the desired color is displayed, press ENTER.
Bargraph Data Bkg
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Bargraph Data Background colors. When the desired color is displayed, press ENTER.
Digits
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Digits colors. When the desired color is displayed, press ENTER.
Digits Abn
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Digits Abnormal colors. When the desired color is displayed, press ENTER.
Digits Text
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Digits Text colors. When the desired color is displayed, press ENTER.
Digits Bkg
Use the Up or Down Arrow Keys, in the pop-up dialog box, to scroll thru the Digits Background colors. When the desired color is displayed, press ENTER.
Default Colors
Press ENTER to invoke the default color settings for all menu items. Press EXIT to return to the Display Colors Menu Item.
Pick Views
Press YES to select the view or NO to bypass the view when toggling through the views.
First Screen View
EXIT
YES/NO
The next Screen View will be displayed. Continue selecting Screen View, YES or NO, the same way the First Screen View was selected. After the last Screen View has been selected, the screen will return to the "Pick Views" menu item.
NOTE
Pressing ENTER at the highlighted prompt selects the displayed prompt.
Rotate Scales
Use the Up or Down Arrow Keys to highlight Auto Rotate or Manual Rotate. When the desired selection is displayed, press ENTER to invoke the menu item. Press EXIT to return to the Rotate Scales menu item.
Auto Rotate
Manual Rotate
Screen Dimmer
Bright Level
Use Up or Down Arrow Keys to adjust Brightness Level for normal viewing.
Dim Level
Use Up or Down Arrow Keys to adjust Dim Level for normal non-viewing display brightness.
minutes ➡XX⬅
Use Pop-Up Keypad to type in number of minutes of non-activity before screen goes to Dim Level.
103733B

Figure 4-6 Displays Menu Item Programming Flow Chart (Sheet 2 of 2)

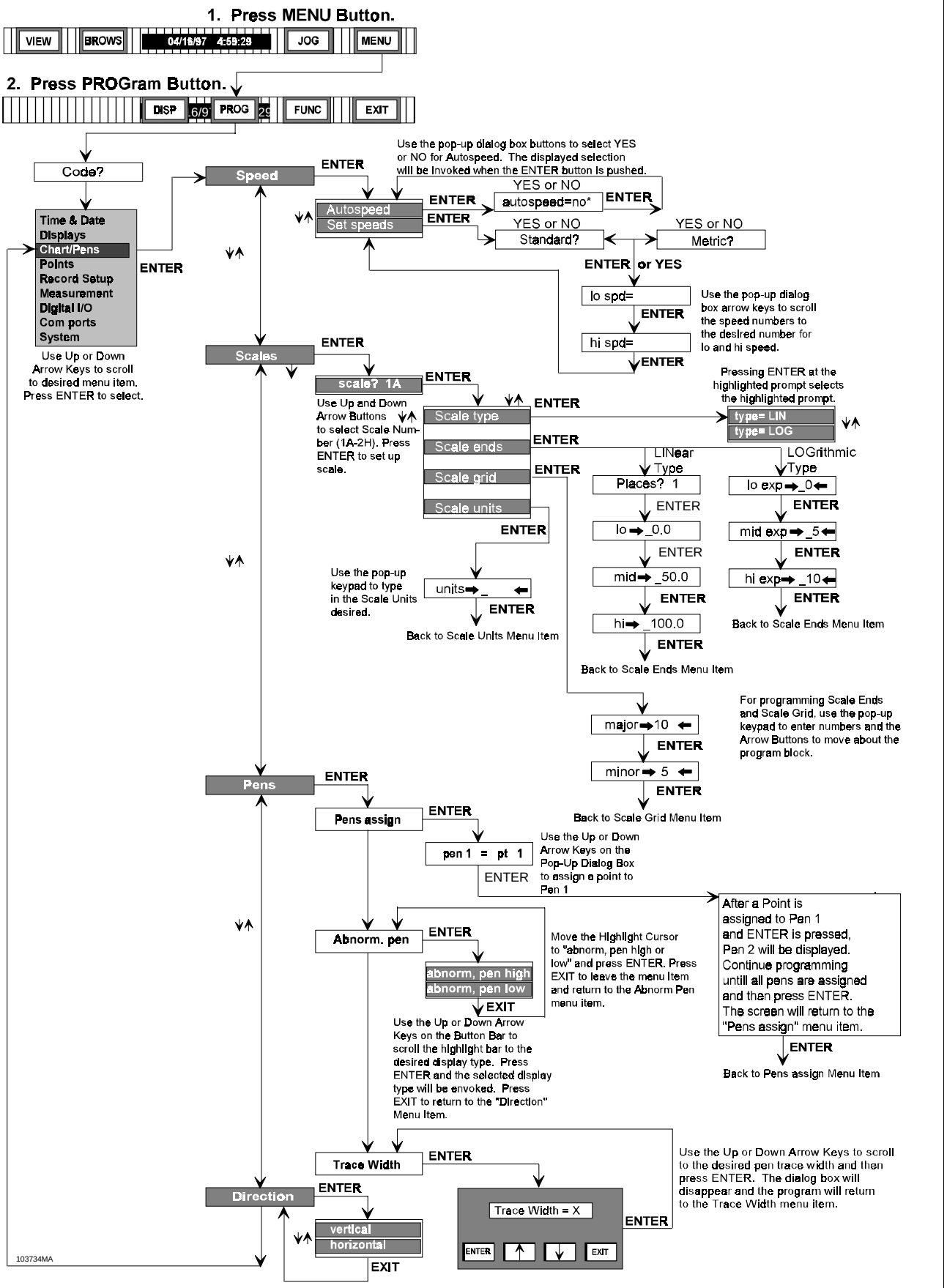

1. Press MENU Button.
VIEW
BROWS
04/15/97 4:59:29
JOG
MENU
2. Press PROGram Button.
DISP
6/9
PROG
29
FUNC
EXIT
Code?
Time & Date
Displays
Chart/Pens
Points
Record Setup
Measurement
Digital I/O
Com ports
System
ENTER
Use Up or Down Arrow Keys to scroll to desired menu item. Press ENTER to select.
Speed
ENTER
Use the pop-up dialog box buttons to select YES or NO for Autospeed. The displayed selection will be invoked when the ENTER button is pushed.
Autospeed
Set speeds
ENTER
YES or NO
autospeed=no*
ENTER
ENTER
YES or NO
Standard?
YES or NO
Metric?
ENTER or YES
lo spd=
ENTER
hi spd=
ENTER
Use the pop-up dialog box arrow keys to scroll the speed numbers to the desired number for lo and hi speed.
Scales
ENTER
scale? 1A
ENTER
Use Up and Down Arrow Buttons to select Scale Number (1A-2H). Press ENTER to set up scale.
Scale type
Scale ends
Scale grid
Scale units
ENTER
Pressing ENTER at the highlighted prompt selects the highlighted prompt.
type= LIN
type= LOG
ENTER
LINear Type
LOGrithmic Type
Places? 1
ENTER
lo ➡ _0.0
ENTER
mid ➡ _50.0
ENTER
hi ➡ _100.0
ENTER
Back to Scale Ends Menu Item
lo exp ➡ _0⬅
ENTER
mid exp ➡ _5⬅
ENTER
hi exp ➡ _10⬅
ENTER
Back to Scale Ends Menu Item
ENTER
Use the pop-up keypad to type in the Scale Units desired.
units➡ _ ⬅
ENTER
Back to Scale Units Menu Item
major➡10 ⬅
ENTER
minor ➡ 5 ⬅
ENTER
Back to Scale Grid Menu Item
For programming Scale Ends and Scale Grid, use the pop-up keypad to enter numbers and the Arrow Buttons to move about the program block.
Pens
ENTER
Pens assign
ENTER
pen 1 = pt 1
ENTER
Use the Up or Down Arrow Keys on the Pop-Up Dialog Box to assign a point to Pen 1
After a Point is assigned to Pen 1 and ENTER is pressed, Pen 2 will be displayed. Continue programming untill all pens are assigned and then press ENTER. The screen will return to the "Pens assign" menu item.
ENTER
Back to Pens assign Menu Item
Abnorm. pen
ENTER
abnorm, pen high
abnorm, pen low
EXIT
Move the Highlight Cursor to "abnorm, pen high or low" and press ENTER. Press EXIT to leave the menu item and return to the Abnorm Pen menu item.
Use the Up or Down Arrow Keys on the Button Bar to scroll the highlight bar to the desired display type. Press ENTER and the selected display type will be envoked. Press EXIT to return to the "Direction" Menu Item.
Trace Width
ENTER
Trace Width = X
ENTER
ENTER
EXIT
Use the Up or Down Arrow Keys to scroll to the desired pen trace width and then press ENTER. The dialog box will disappear and the program will return to the Trace Width menu item.
Direction
ENTER
vertical
horizontal
EXIT
103734MA

Figure 4-7 Chart/Pens Setup Menu Flow Chart

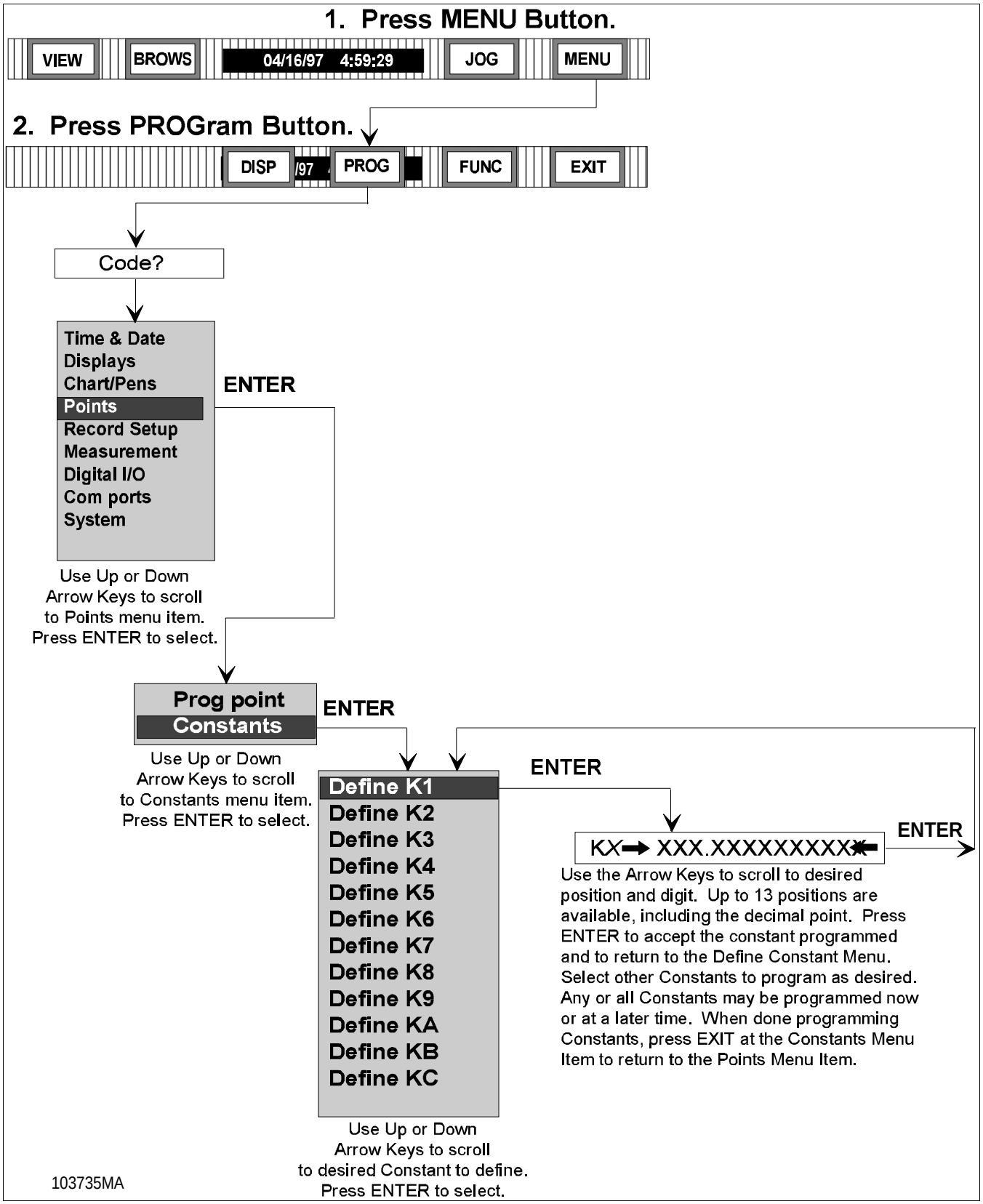

1. Press MENU Button.
VIEW
BROWS
04/16/97 4:59:29
JOG
MENU
2. Press PROGram Button.
DISP
/97
PROG
FUNC
EXIT
Code?
Time & Date
Displays
Chart/Pens
Points
Record Setup
Measurement
Digital I/O
Com ports
System
ENTER
Use Up or Down Arrow Keys to scroll to Points menu item. Press ENTER to select.
Prog point
Constants
ENTER
Use Up or Down Arrow Keys to scroll to Constants menu item. Press ENTER to select.
Define K1
Define K2
Define K3
Define K4
Define K5
Define K6
Define K7
Define K8
Define K9
Define KA
Define KB
Define KC
ENTER
Use Up or Down Arrow Keys to scroll to desired Constant to define. Press ENTER to select.
KX XXX.XXXXXXXXX
ENTER
Use the Arrow Keys to scroll to desired position and digit. Up to 13 positions are available, including the decimal point. Press ENTER to accept the constant programmed and to return to the Define Constant Menu. Select other Constants to program as desired. Any or all Constants may be programmed now or at a later time. When done programming Constants, press EXIT at the Constants Menu Item to return to the Points Menu Item.
103735MA

Figure 4-10 Program Constants Flow Chart

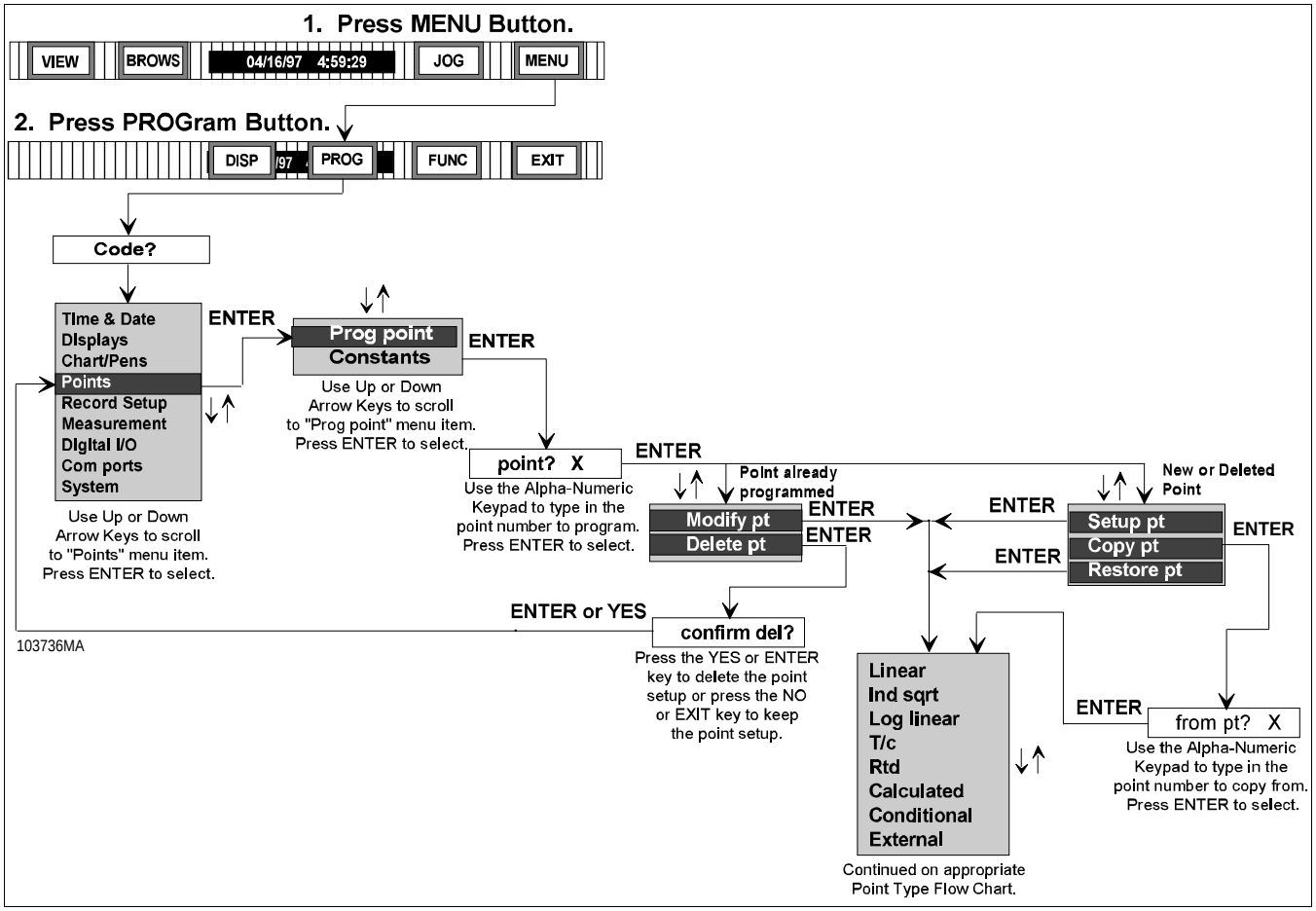


Figure 4-11 Point Setup Flow Chart

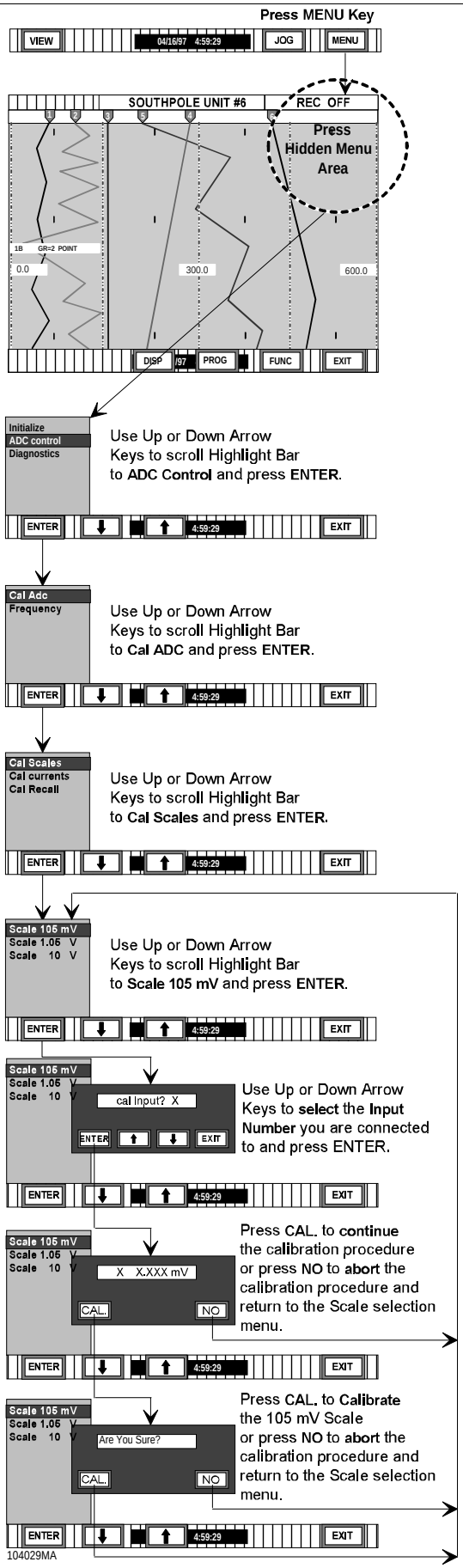


Figure 6-2 ADC Calibration Programming Flow Chart

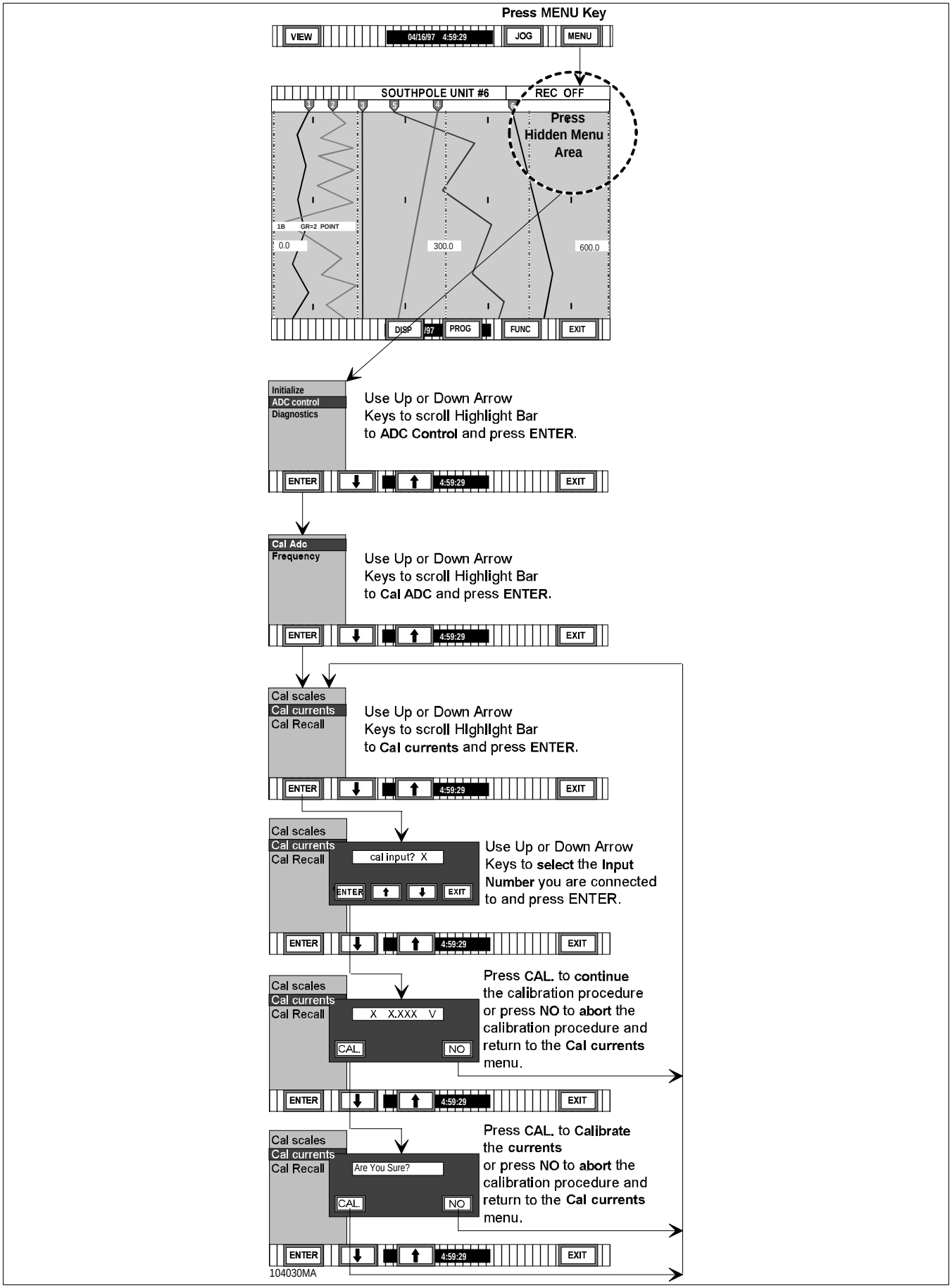


Figure 6-3 Current Calibration Flow Chart

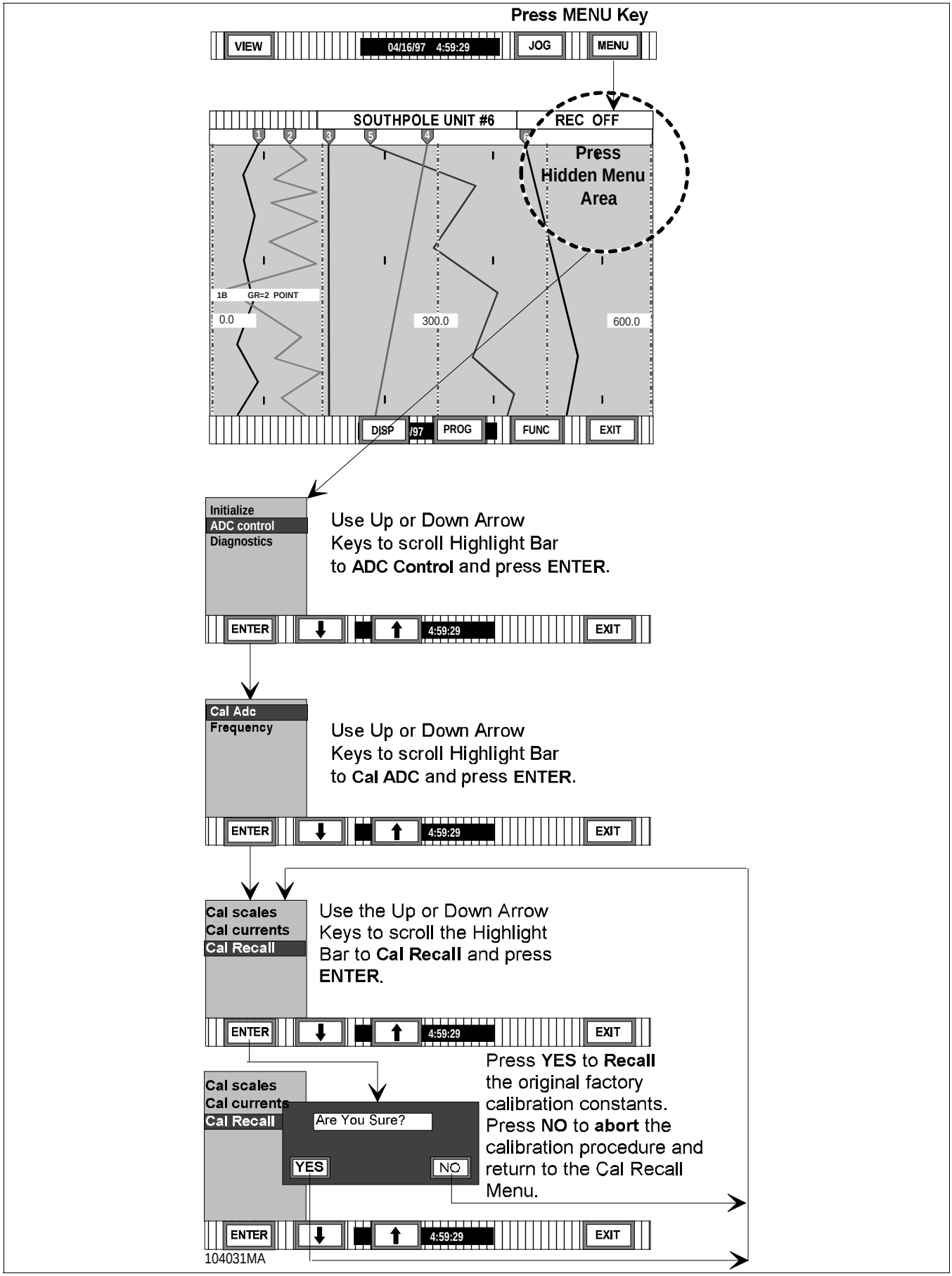


Figure 6-4 Restore the ADC Constants Flow Chart

APPENDIX E

POINT PROGRAMMING FORM

Make copies as needed.

Unit Tag #_____ **Page _____ of _____**

Thermocouple/RTD Point Programming Table

Point # =		**Point Tag =**	
Type =		**Eng. Units =**	**Chart Scale =**
Filter =		**Span =**	**Offset =**
Compensation =		**Decimal Fix =**	

	Type	Setpoint/Seconds (Rate)	Contact #
Alarm 1:			
Alarm 2:			
Alarm 3:			
Alarm 4:			
Alarm 5:			

Alarm Delay =		**Alarm Deadband =**	

APPENDIX E

POINT PROGRAMMING FORM

Make copies as needed.

Unit Tag #_____ **Page _____ of _____**

Linear/Log Linear/Industrial Square Root Point Programming Table

Point # =		**Point Tag =**			
Type =		**Eng. Units =**		**Chart Scale =**	
Input Scale =	**Lo End**		**Hi End**		
Output Scale=	**Lo End/Exp.**		**Hi End/Exp.**		
Filter =		**Currents =**		**Dec. Fix=**	

	Type	Setpoint/Seconds (Rate)	Contact #
Alarm 1:			
Alarm 2:			
Alarm 3:			
Alarm 4:			
Alarm 5:			

Alarm Delay =		**Alarm Deadband =**	

APPENDIX E

POINT PROGRAMMING FORM

Make copies as needed.

Unit Tag #_____ **Page _____ of _____**

Calculated Point Programming Table

Point # =		**Point Tag =**			
Type =		**Eng. Units =**		**Chart Scale =**	
Basepoint #1/ Gating/ Flowpoint =		**Basepoint #2/ Period/ Cutoff/**		**Decimal Fix =**	
Equation/ Flowrate/					
Autoreset =					
Event Reset =		**Reset Print =**			
Reset Interval=	**(HH:MM:SS)**	**Start Time =**	**(HH:MM:SS)**		

	Type	Setpoint/Seconds (Rate)	Contact #
Alarm 1:			
Alarm 2:			
Alarm 3:			
Alarm 4:			
Alarm 5:			

Alarm Delay =		**Alarm Deadband =**	

APPENDIX E

POINT PROGRAMMING FORM

Make copies as needed.

Unit Tag #_____ **Page _____ of _____**

Conditional Point Programming Table

Point # =	**Point Tag =**	
Type =	**Eng. Units =**	**Chart Scale =**
Set Conditional =		

	Type	Contact #
Alarm 1:		
Alarm 2:		
Alarm 3:		
Alarm 4:		
Alarm 5:		
Alarm Delay =		

APPENDIX E

POINT PROGRAMMING FORM

Make copies as needed.

Unit Tag #_____ **Page _____ of _____**

External Point Programming Table

Point # =		**Point Tag =**	
Type =		**Eng. Units =**	**Chart Scale =**
Input Scale =	**Lo End**		**Hi End**
Output Scale=	**Lo End/Exp.**		**Hi End/Exp.**
Timeout =			**Dec. Fix=**

	Type	Setpoint/Seconds (Rate)	Contact #
Alarm 1:			
Alarm 2:			
Alarm 3:			
Alarm 4:			
Alarm 5:			

Alarm Delay =		**Alarm Deadband =**	

APPENDIX E

POINT PROGRAMMING FORM

Unit Tag #_____ **Page _____ of _____**

Constants Programming

K1 =	**K2 =**	**K3 =**
K4 =	**K5 =**	**K6 =**
K7 =	**K8 =**	**K9 =**
KA =	**KB =**	**KC =**
KD =	**KE =**	**KF =**

Pens Assignment

Pen Color	Point Number Assignment
Red	
Green	
Blue	
Violet	
Black	
Brown	

POINT PROGRAMMING FORM

Programming Form Cell Explanations

Alarm Contact Output Number - Assign each of the alarm setpoints to one of the 4 or 8 optional contact outputs. Enter 0 for no contact output assignment.

Alarm Deadband - Applies to alarm setpoints (Hi or Lo). The period between the value the point goes into alarm and the value of when the point goes out of alarm.

Alarm Delay - Assign the delay time before an alarm will become active

Alarm Setpoint - Enter the alarm setpoint values that relate to areas within the range of the chart scale values. If no alarm is required, enter NONE.

Alarm Type - Assign the alarm type, High, Low, Rate, Abnormal

Autoreset - Assign Autoreset ON or OFF.

Basepoint #1 - Assign a point as the basepoint.

Basepoint #2 - Assign a point as the second basepoint.

Calculated Point - List and define Calculated Point(s)(e.g. Filter Count for Moving Average applied to selected point). Note whether thermocouples are locally or externally compensated and define low and high end inputs for variable voltage inputs. Points to be included in the Group Average or HI/LO Difference function must be consecutive points.

Chart Scale - Assign a Chart Scale (A, B, C, D, E, F, G, or H) to each point being trended (trendable points only).

Compensation - Assign Local or External compensation for T/C points.

Currents - Enable or disable current source for measuring resistance.

Cutoff, Low - Assign a low value to stop totalization.

Decimal Fix - Enter a decimal fix of 0 to E (Exponetial). Decimal Fix separates the integer part of the number from the fractional part (e.g. Dec. Fix = 2; 100.75)

Eng. Units - Enter the five-character (max.) engineering unit description assigned to current and voltage inputs and calculated points. For thermocouples and RTDs, select either Degrees C or F.

Equation - Enter an equation formula for this point.

Event Reset - Assign an event number to reset a point (Resettable point types only).

Filter - Enter the number of Filter Seconds.

Flowpoint - Assign a point as the basepoint.

Flowrate - Assign a flow rate units for Totalize points.

Gating - Assign a point as the basepoint.

Input Number - Enter the input number corresponding to the assigned Point Number (Direct Inputs Only)

Input Scale, **High End** - Enter high end of input voltage range.

Input Scale, Low End - Enter low end of final engineering units output.

Offset - Assign T/C offset correction value.

Output Scale, High End Exp Value - Enter high exponential value for Log calculation.

Output Scale, Low End Exp Value - Enter low exponential value for Log calculation.

Period, Time - Assign the time length of the moving window, Gated Timer

Programming Form Cell Explanations (Continued)

Point # - Enter desired number (01 thru 9 and A thru F)

Point Tag - Enter 10 character (max.) descriptive phrase identifying each point.

Point Type - Define the type of signal input that will be measured (e.g. J/TC, RTD, 4 to 20ma, etc.) or math calculation to be performed (e.g. Addition, Square Root, etc.).

Rate Alarm - Enter rate of change value in Engineering Units (based on per minute change).

Reset Print - Assign YES or NO to print data on reset.

Set Conditional - Enter conditional statement for this point.

Span - Assign T/C span correction value.

Timeout - Enter the time period programmed between signal updates before flagging the point invalid

APPENDIX F

UNIT PROGRAMMING CHART

Unit Tag #_____ **Page _____ of _____**

PROGRAM KEY

DISPLAYS

MAIN

Display Rate =	Time Format =
Power-Up Display =	Unit tag =
Screen Dimmer: Bright Level=	Dim Level=

BAR Assign	Point Assignment	DIGITAL Assign	Point Assignment
Red =		Red =	
Green =		Green =	
Blue =		Blue =	
Violet =		Violet =	
Black =		Black =	
Brown =		Brown =	

CHART/PENS

CHART SPEED	Standard	Metric
Autospeed = ON OFF		
Low speed =	High speed =	

SCALES

Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =	Units =	
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =	Units =	
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=

Please copy as needed.

APPENDIX F

UNIT PROGRAMMING CHART

Unit Tag #_____ **Page _____ of _____**

SCALES			
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=
Scale #:_____	Type =		Units =
	Lo =	Mid =	Hi =
	Majors=		Minors=

Please copy as needed.

APPENDIX F

UNIT PROGRAMMING CHART

Unit Tag #_____ **Page _____ of _____**

PROGRAM KEY (Continued)

CHART/PENS (Continued)

PENS ASSIGN

Abnormal Pen = (Hi, Low)	Pens Assign:
Pen 1 =	Pen 4 =
Pen 2 =	Pen 5 =
Pen 3 =	Pen 6 =

Direction = Vertical Horizontal

POINTS: See Point Programming Forms, Appendix E.

RECORD SETUP:

Recording = ON OFF	Alarm Record = YES NO	Data Recording = YES NO	Fill Mode = Cyclic Fill to end
Record Speed = Low High Autospeed		Points To Record = 1 2 3 4 5 6 7 8 9 A B C	

Sample Rates:			
	Point 1	Low = 0-600 sec.	High = 0-600 sec.
	Point 2	Low = 0-600 sec.	High = 0-600 sec.
	Point 3	Low = 0-600 sec.	High = 0-600 sec.
	Point 4	Low = 0-600 sec.	High = 0-600 sec.
	Point 5	Low = 0-600 sec.	High = 0-600 sec.
	Point 6	Low = 0-600 sec.	High = 0-600 sec.
	Point 7	Low = 0-600 sec.	High = 0-600 sec.
	Point 8	Low = 0-600 sec.	High = 0-600 sec.
	Point 9	Low = 0-600 sec.	High = 0-600 sec.
	Point A	Low = 0-600 sec.	High = 0-600 sec.
	Point B	Low = 0-600 sec.	High = 0-600 sec.
	Point C	Low = 0-600 sec.	High = 0-600 sec.

Triggered Points = 1 2 3 4 5 6 7 8 9 A B C	Averaging Points = 1 2 3 4 5 6 7 8 9 A B C
File Name =	Full Disk Contact =
Full Disk Setpoint =	Beep Enable = YES NO

MEASUREMENT:

ADC Mode =	Frequency =
TCBO Interval =	Span & Offset =

Please copy as needed.

APPENDIX F

UNIT PROGRAMMING CHART

Unit Tag #_____ **Page** _____ **of** _____

DIGITAL I/O:		
CONTACT OUTPUTS		
Open Alarms Clear = YES NO	Open on Acknowledge = YES NO	
Failsafe = YES NO	Reflash = YES NO	
SWITCHES IN		
Switch 1 =	Switch 2 =	
Switch 3 =		
EVENT MESSAGES		
Event 1 Open =	Event 1 Close =	
Event 2 Open =	Event 2 Close =	
Event 3 Open =	Event 3 Close =	
COM PORTS		
Network I.D. =	Protocol =	Baud =
Modem Enable:= YES NO	Parity = YES NO	Stop bits =
Modem String:=		
SYSTEM		
FUNCTION MENU PROTECTION	Passcode =	
PROGRAM MENU PROTECTION	Passcode =	
DISPLAY KEY		
Point	Alarms	Version: =

Please copy as needed.

APPENDIX G

RECORD PROGRAMMING CHART

Unit Tag #_____ **Page _____ of _____**

FUNCTION KEY			
RECORD ON/OFF	Record = YES NO Trigger		
ACTIVATE POINT			
Point # 1 YES NO	Point # 2 YES NO	Point # 3 YES NO	
Point # 4 YES NO	Point # 5 YES NO	Point # 6 YES NO	
Point # 7 YES NO	Point # 8 YES NO	Point # 9 YES NO	
Point # A YES NO	Point# B YES NO	Point # C YES NO	
BYPASS POINT			
Point # 1 YES NO	Point # 2 YES NO	Point # 3 YES NO	
Point # 4 YES NO	Point # 5 YES NO	Point # 6 YES NO	
Point # 7 YES NO	Point # 8 YES NO	Point # 9 YES NO	
Point # A YES NO	Point# B YES NO	Point # C YES NO	
RESET POINT			
Point # 1 YES NO	Point # 2 YES NO	Point # 3 YES NO	
Point # 4 YES NO	Point # 5 YES NO	Point # 6 YES NO	
Point # 7 YES NO	Point # 8 YES NO	Point # 9 YES NO	
Point # A YES NO	Point# B YES NO	Point # C YES NO	
CHART SPEED =	HI	LO	
RECORD SPEED =	HI	LO	
ALARM CHECK =	YES	NO	
SCALE SET =	Scaleset 1	Scaleset 2	
TREND MESSAGE =	1 2 3 4 5 6		

Please copy as needed.

APPENDIX H

GETDATA SOFTWARE

1.1 GENERAL INFORMATION AND INSTALLATION

1.1.1 Purpose. The Getdata Software allows you to export files from the SmartView disk to a format compatible to spreadsheet programs. This software is to be run on PC Windows® 3.1 and Windows 95®/98® operating systems. You can export both Point and Alarm/Event files. The files produced be the Recorder are in MSDOS® compatible format. The Windows® File Manager can be used to copy, move, save, and/or rename the files.

1.1.2 Installation. Installation on Windows® 3.1 and Windows 95® operating systems is as follows:

1. Insert the floppy disk into your PC computer disk drive.

2. Use the Windows® Program Manager to select the File/Run menu item or in Windows 95® select Start/Run. A Dialog Box like the one shown in Figure 1 will appear.

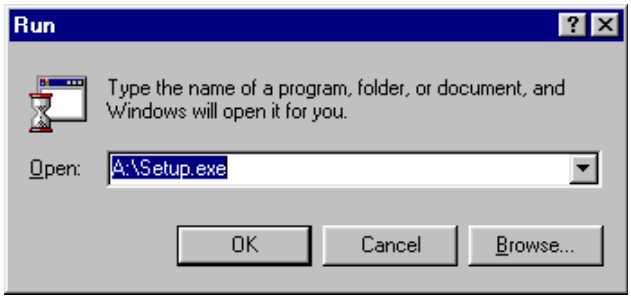


Figure 1 Windows 95® Run Dialog Box

3. Type in A:/Setup or B:/Setup, depending upon which drive you inserted the disk in, and click on the ***OK*** button. In Windows 95® you may also select the ***BROWS*** Button and find the Setup File on the disk and then click on the ***OK*** Button. The software program will then start to automatically install the Getdata program onto your computer.

4. After the program starts installing, another dialog box will appear as shown in Figure 2. This dialog box will show the default location for the Getdata program files to be stored on your computer.

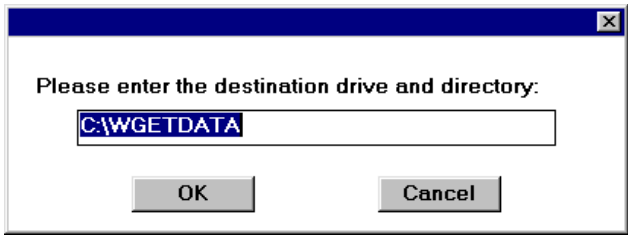


Figure 2 File Location Dialog Box

5. If you accept the default location, as shown on the Figure 2 dialog box, then click on the ***OK*** button. If you want the files to be located on a different drive or in a different directory or sub-directory, then click in the text box portion of the dialog box and type in your preference. The program files will then be stored in your preferred location.

1.1.3 Running the Program. To run the program, click on the icon in the Program Manager (Windows® 3.1) or click on Start - Programs - Get Data - Get Data (Windows 95®).

2.1 Program Operation

2.1.1 Menu. The Getdata program has three menu items on the Main Menu Bar at the top of the screen as shown in Figure 3. These menu items are:

- Export
- Exit
- Help

A. Export Menu Item - This option creates a file that can be read by other programs such as spreadsheets. When Export is selected, the dialog box shown in Figure 4 will be displayed. There are several choices available to you in this dialog box.

1. Drive - If you chose to put your Recorder files in a drive other than where the Getdata program is stored, then you will need to click on the Drives Arrow and select the drive letter that the Recorder files are located on. Most times, if you are using a disk from the Recorder, this will be the “A” drive. Select the drive your files are located in by clicking on it.

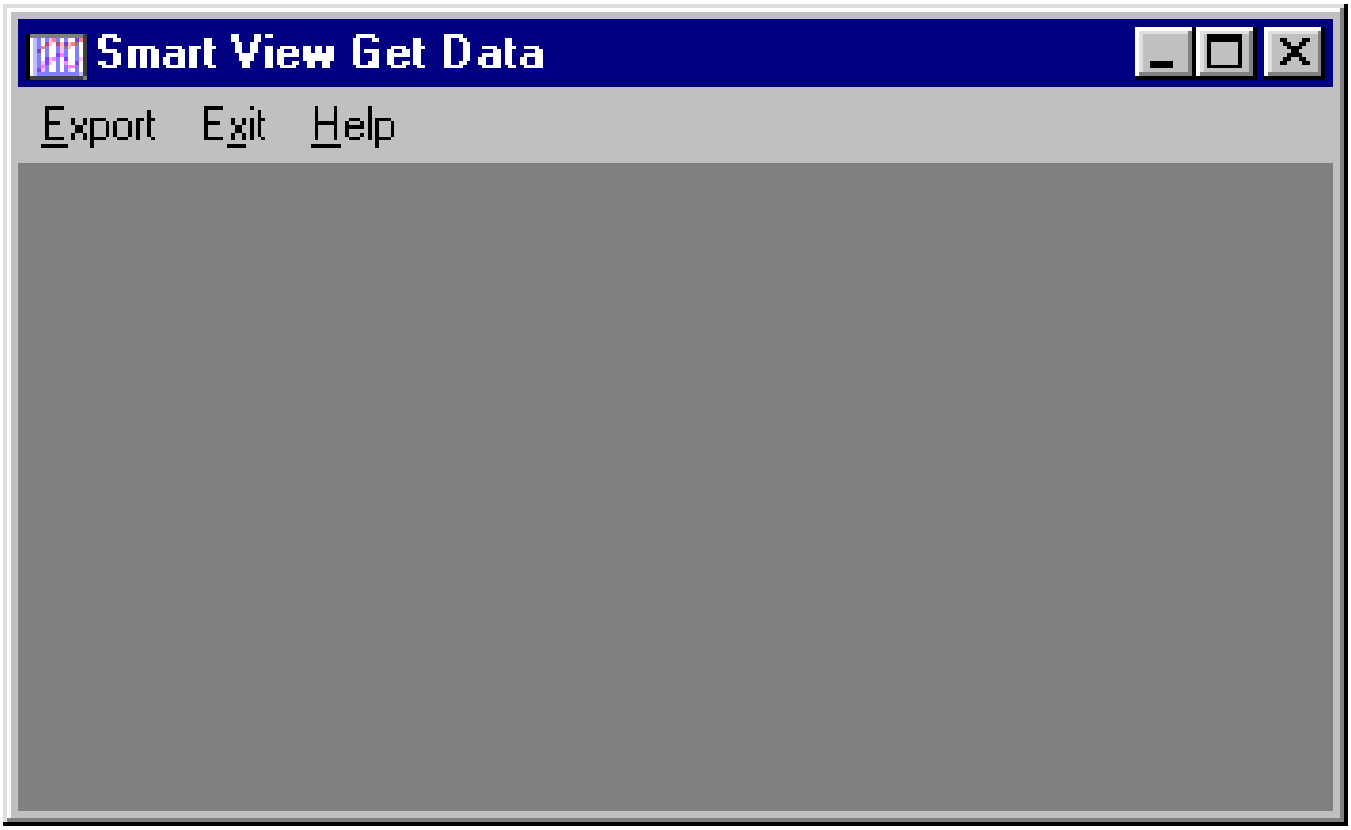


Figure 3 Getdata Program Opening Screen

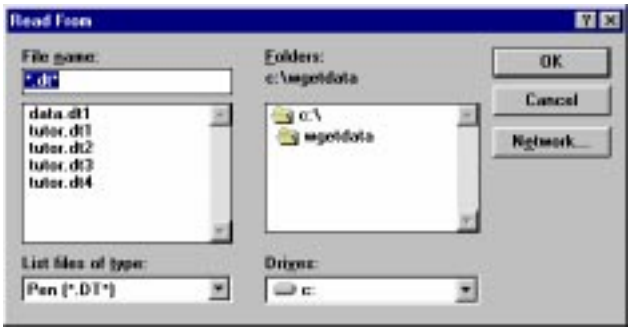


Figure 4 Export Menu Item Dialog Box

2. Folders - If you chose to put your Recorder files in a folder other than where the Getdata program is stored, then you will need to double-click on the drive letter and double-click on a folder to select the folder that the Recorder files are located in. Most times, if you are using a disk from the Recorder, this will be the "A" drive.

3. List Files of Type - The default file type extention is a ".DT" or Pen file. You may click on the List File of Type Arrow and select one of the following by clicking on the file type to highlight it:

- Pen File (.DT)
- All Files (*.*)
- Alarm/Event Files (.ALM)

4. File Name - You must now set up an export File Name. After you have set the Drive, the Folder, and the File Type, a list of the desired file names should appear. Click on the File Name you wish to export or click inside of the small File Name text box and type in a file name of your choice. Click the ***OK*** Button and the Export Dialog Box will appear.

5. Export Dialog Box - At this point the Export Dialog Box will appear to allow you to select how you want the file to be exported, as shown in Figure 5.

GETDATA SOFTWARE

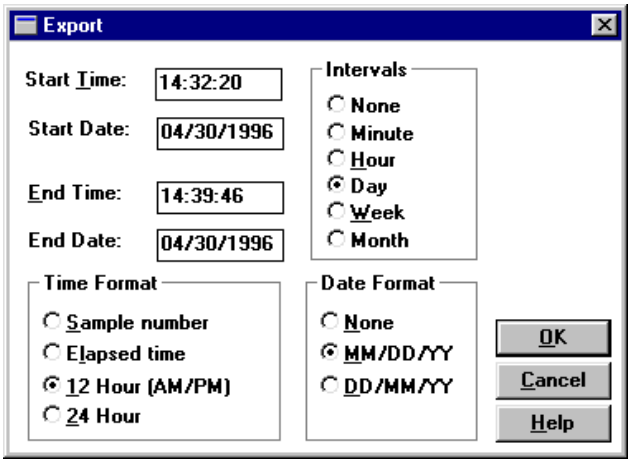


Figure 5 Export Dialog Box

a. Exported File Format - Alarm/Events - Alarm/ Event files are exported as comma separated variables (CSV). The file has a header as follows: "Date", "Time", "Point/Event", "Type", "Value"

Each line afterwards has a line of data that corresponds to each line in the event window that is being exported. The data on each line follows the format indicated by the labels above. The format in which time and date are stored is as it appears in the event window, and may be changed by using the Options/Display menu in the Companion software.

- *Alarm Event Exported File Format Example:*

```
"Date","Time","Point/Event","Type","Value"

30/4/1996 ,02:32:30 pm,3," High Peak:",51.970470
30/4/1996 ,02:33:01 pm,3,"Peak Reset:"
30/4/1996 ,02:32:52 pm,4,"Low Peak:",-95.335541
```

b. Exported File Format for Graphs and Tables - Graph and table data may be exported in various formats.

(1. Graph Data - Select the "File - Export option and you will be presented with an Export Menu Item dialog box. Select the name of your file and press OK. The Export File dialog box as shown in Figure 5 will then appear. The export dialog box allows you to select the Start and End Times, the format for the Time and Date, and optionally break the data up into smaller files, based on a Time Interval.

(2. Start Date and Time - Select the Time and Date to start exporting data. This, along with End Date and Time, allows a specific part of the file to be exported.

(3. End Date and Time - Select the Time and Date to stop exporting data. This, along with Start Date and Time, allows a specific part of the file to be exported.

(4. Time Format - Select the time format either as sample number, where each value output will be numbered, elapsed time, where the first sample is time 0:00:00 and each sample is then time incremented, or select an absolute time format, 12 or 24 hour.

(5. Date Format - Select either month day MM/DD/YYYY (American), or day month representation DD/MM/YYYY (European) or None to suppress the date.

(6. Intervals - The Intervals option allows you to export "Blocks" of data rather than the whole file which may be too large for certain spreadsheets. The block may be selected as intervals of one minute, one hour, one day, one week or one month. An interval of NONE exports the entire file. Select the option you want.

(7. Once the export options have been selected click on the OK button or press [ENTER] and the data will be exported into the file that was previously named.

B. Exit Menu Item - This menu item, when activated, allows you to exit the program.

C. Help Menu Item - To get information about the program, select Help, About.